INDIA INC: THE NEXT BIG LEAP

COLLECTOR'S EDITION VOLUME III

business today

www.business-today.com Rs. 100

9.4.03

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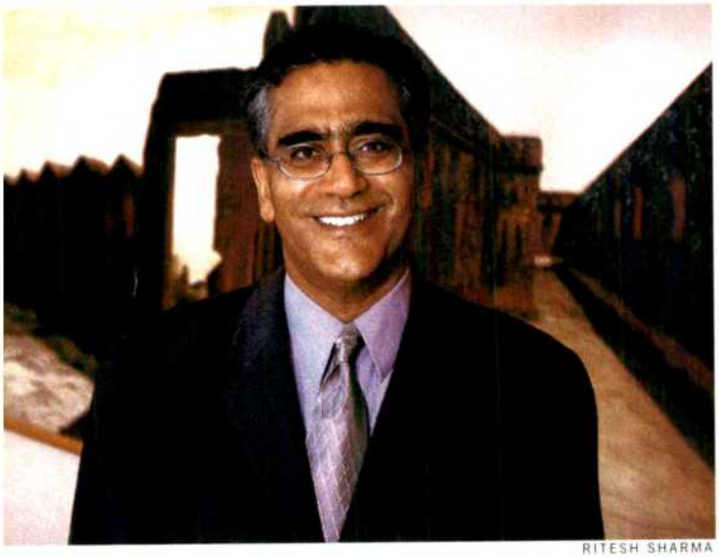
RITESH SHARMA

WHEN *BUSINESS TODAY* WAS launched in 1992, the internet was still a closed network restricted to scientific and academic institutions, personal digital assistants were still unheard of, we were still to use our first mobile phones, and cricket didn't have the concept of a third umpire. The last decade of the 20th century and the first three years of the 21st have witnessed an information revolution that has changed, and promises to continue to change, the way we live and work. *Business Today* has captured these changes, and suggested how they could impact business. The motto of the magazine has always been: "For Managing Tomorrow."

Keeping this in mind, we decided that the third volume of our commemorative *India Inc: The Next Big Leap* series would be dedicated to the new technologies that are reshaping our homes and offices, the way we communicate and collaborate, and the way our organisations function. Technology, after all, isn't just about technology—it is about the changes it brings about. We have divided these changes into seven sections: The Network, The Enterprise, The Factory, The Office, Life On The Move, The Home, and Services. All this in totality will show how our lives will be transformed in every aspect.

It is always hard to write about the future, especially when you are doing it in the present. To tackle this, we have put together articles by a clutch of CEOs, academics, consultants, and futurists. Most of these articles look at the technologies of the future from the user's perspective, although, to maintain the purity of the turf, some are decidedly heavy on technology.

There are some common strands running through the collective vision of our contributors. They are:

- It is going to be all about the network. A single intelligent network will serve all our needs.
- The internet will change our lives in ways we have only just begun to imagine.
- Devices will become multifunctional—phones with cameras are already here—and could soon take totally unexpected forms, like wearable computers.
- An entire industry will emerge out of serving the communication and computing needs of individuals on the move. Indeed, the much-hyped mobile internet society may soon be a reality.
- Companies and individuals will use each of these technological revolutions to do what they have traditionally done—improve quality of life and improve quality of business processes.
- Technology will be used for e-governance and help bridge the gap between the haves and the have-nots.

India has a unique opportunity to apply the latest digital technology and revolutionise all its sectors, including agriculture. In fact, if done properly with a vision, strategy and determination, we could transform our economy into a developed one in a short period.

I hope the insights on technology offered in this issue will help you manage your tomorrow better.

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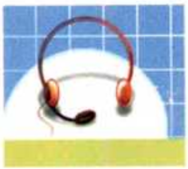

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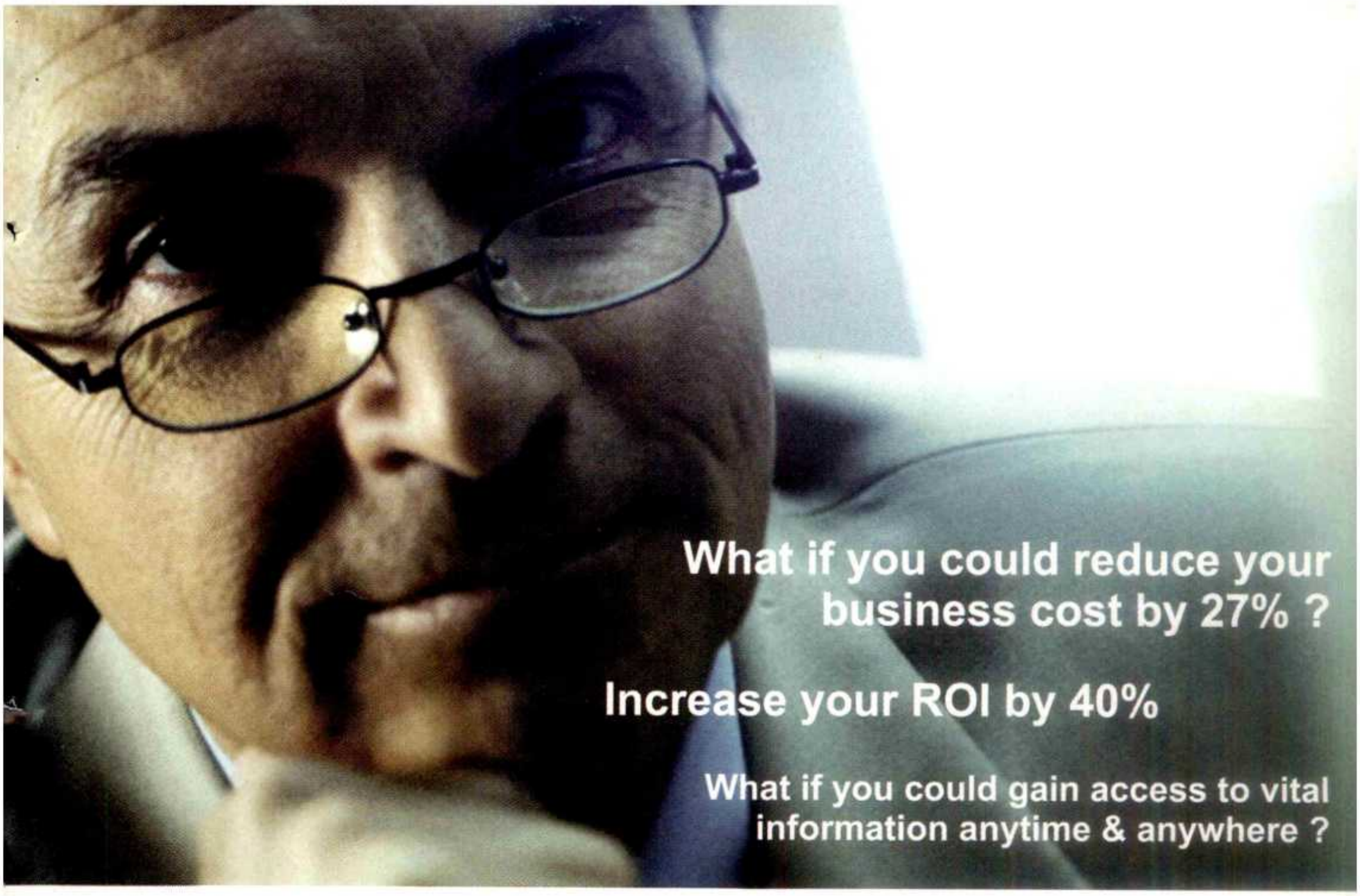
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India : *ashish.k@vorks.com*
Germany : *anish.k@vorks.com*
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G. KRISHNASWAMY

IIT'S A. JHUNJHUNWALA: Converged networks are the future

puting, entertainment, and telecommunication networks in India is imminent. What would be the elements of this converged network? Will Indian companies be able to become product players supplying these elements?

The Elements Of Convergence

Telecom networks have four elements: the backbone transport network; backbone switches and routers; service platforms; and the access network The backbone transport network is primarily the fibre optic network—already, a single fibre can carry millions of voice channels and thousands of video channels at the same time. This capacity will grow in the coming years. India's private and public telecom operators already have a dense web of fibre in place, reaching to within 10 kms of most villages. And the network is being continuously augmented with infrastructure heavy-weights RailTel, Gas Authority of India Ltd, and Power Grid Corporation joining the fibre-laying movement. Today, backbone transport networks account for only 10 per cent of the capital expenditure on each connection. The fibre itself is produced in India and the basic electronics (photonics) required to light the fibre and switch the channel is increasingly becoming available at very cost-effective rates from emerging Indian and Chinese companies. True, advanced technologies such as Dense Wavelength Division Multiplexing and Switching are the exclusive domain of large Western corporations, but given that its existing fibre is underutilised, India can postpone this investment.

Backbone switches and routers switch the traffic on the backbone networks. They account for between 5 and 10 per cent capital expenditure. Western multinationals have invested tens of billions of dollars in developing tera-bit switching technology over the last five years, and they will dominate the product-markets for some time to come. But with IC manufacturers vying to integrate these technologies into their components, India can leverage its considerable software talents to position itself as a centre of research and development for next-generation switches.

Service platforms account for 15 per cent of the capital expenditure of a telecom network. They include operations management, network management, customer care and billing, intelligent network platforms, and web and entertainment servers. While the market for computer platforms and tools such as database management systems are dominated by the likes of IBM, H-P, Sun and, Oracle, application software is an area where India can make a mark.

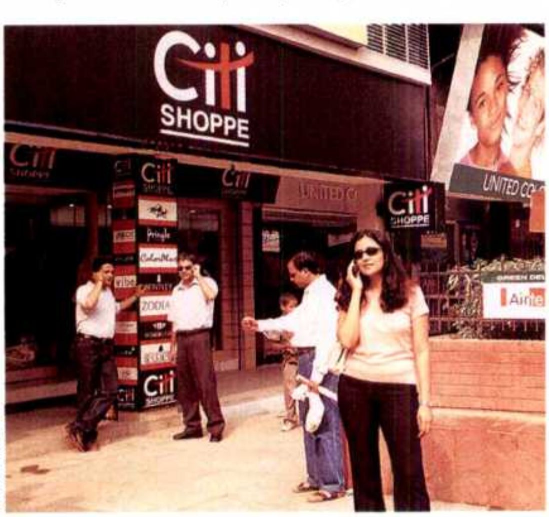
The access network is the key element of telecom networks. It may account for as much as 65 per cent of capital expenditure. More importantly, as the backbone network becomes a high-speed converged digital network, it will be the access network (it carries traffic between the backbone and the subscriber) that will decide what kind of services can be provided to a subscriber.

Access networks largely revolve around three technologies: Fibre Access Network (FAN), Mobile Access Network, and Fixed Wireless Network.

A Fibre Access Network provides services to subscribers using mostly fibre and copper. Western corporations have experimented for years on the business viability of taking fibre to home. Today, most companies have arrived at the conclusion that it isn't an economically viable option. The Indian situation, thanks to R&D work carried out by some Indian and Chinese companies, has been different since 2002. Suddenly, fibre and copper have emerged as the least-cost option to provide services in dense urban India—not only in multi-tenant buildings and commercial complexes, but also in residential areas. Companies have realised that it makes economic sense to lay fibre till the last mile, and then use copper.

"Basic business logic dictates that a company provide a converged network at Rs 13,000 per connection"

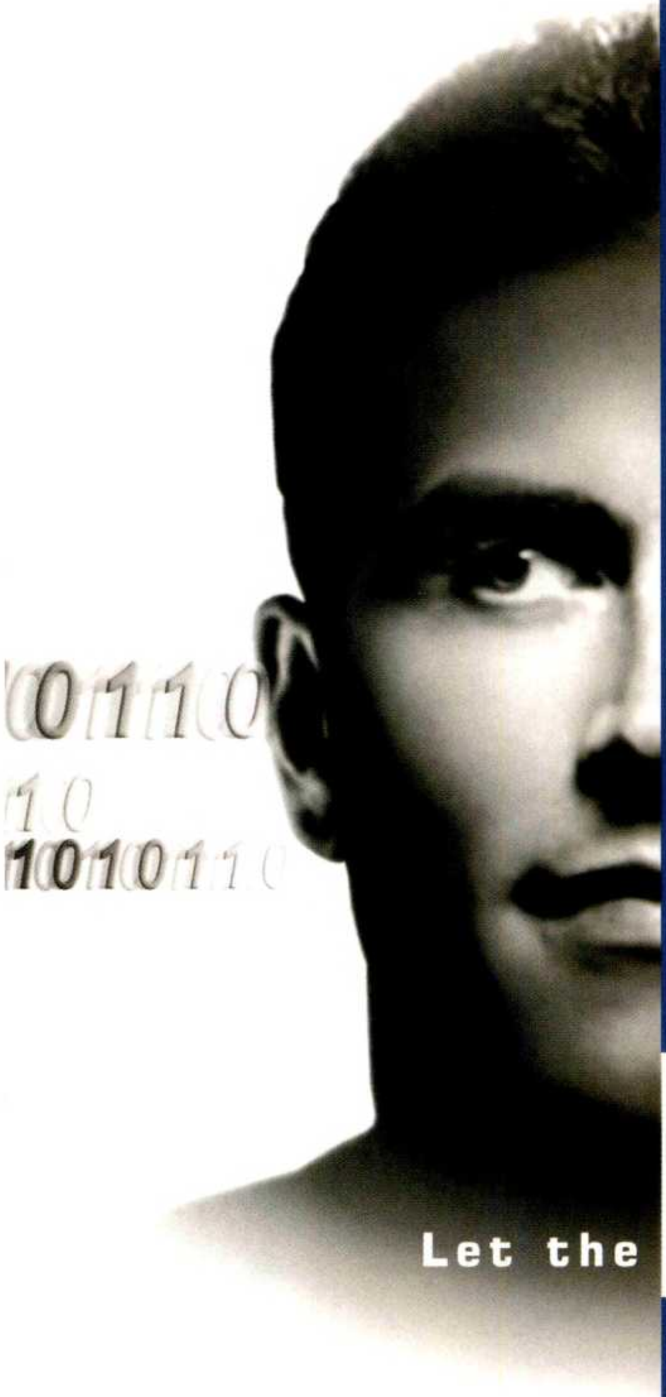
With such high bandwidth available, one can now provide not only telephony, but also medium to high-speed internet access, cable TV and also video on demand (with a 100 Base T connection on copper). And those companies allergic to copper can use technologies like 802.11 wireless for the last mile—fibre-termination becomes cost-effective only as long as at least 24 subscribers can be served by it. If the last-mile connection exceeds 100 meters, one may need some DSL (Digital Subscriber Loop) on copper or enhanced wireless, and there is scope for these technologies to be rendered more cost-effective.



VIVAN MEHRA

Mobile Access Networks are already thriving in India. GSM (European Mobile) and IS-95 (American Mobile, also referred to as CDMA or WLL in India) telephones are already a way of life in the country. And next-generation technologies such as General Packet Radio Switching, Enhanced Data GSM Environment and 3G-1X are already knocking at our doors and hold the promise of enhanced messaging and some internet services. The large and growing Indian and Chinese markets have driven down the cost of such mobile technologies, much of which are owned and licensed by Western multinationals. However, the next generation of wireless technologies is unlikely to be 3G. China has already announced its decision to go for its own standard. It can do so because of its large market. India certainly has an R&D capability to come up with its own next-generation wireless standard (maybe in partnership with China). Will India use its potential market strength to drive its own standard? One has to wait and watch.

The third emerging access technology is Fixed Wireless such as the corDECT Wireless in Local Loop system. This provides fixed connections to homes and offices, much like a landline. If wireless technologies are around, why do we need this? Well, stationary, or fixed mobile connections can provide for a much higher bit-rate using the same



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By Ashok Jhunjhunwala Professor, IIT, Madras

India And The Converged Network

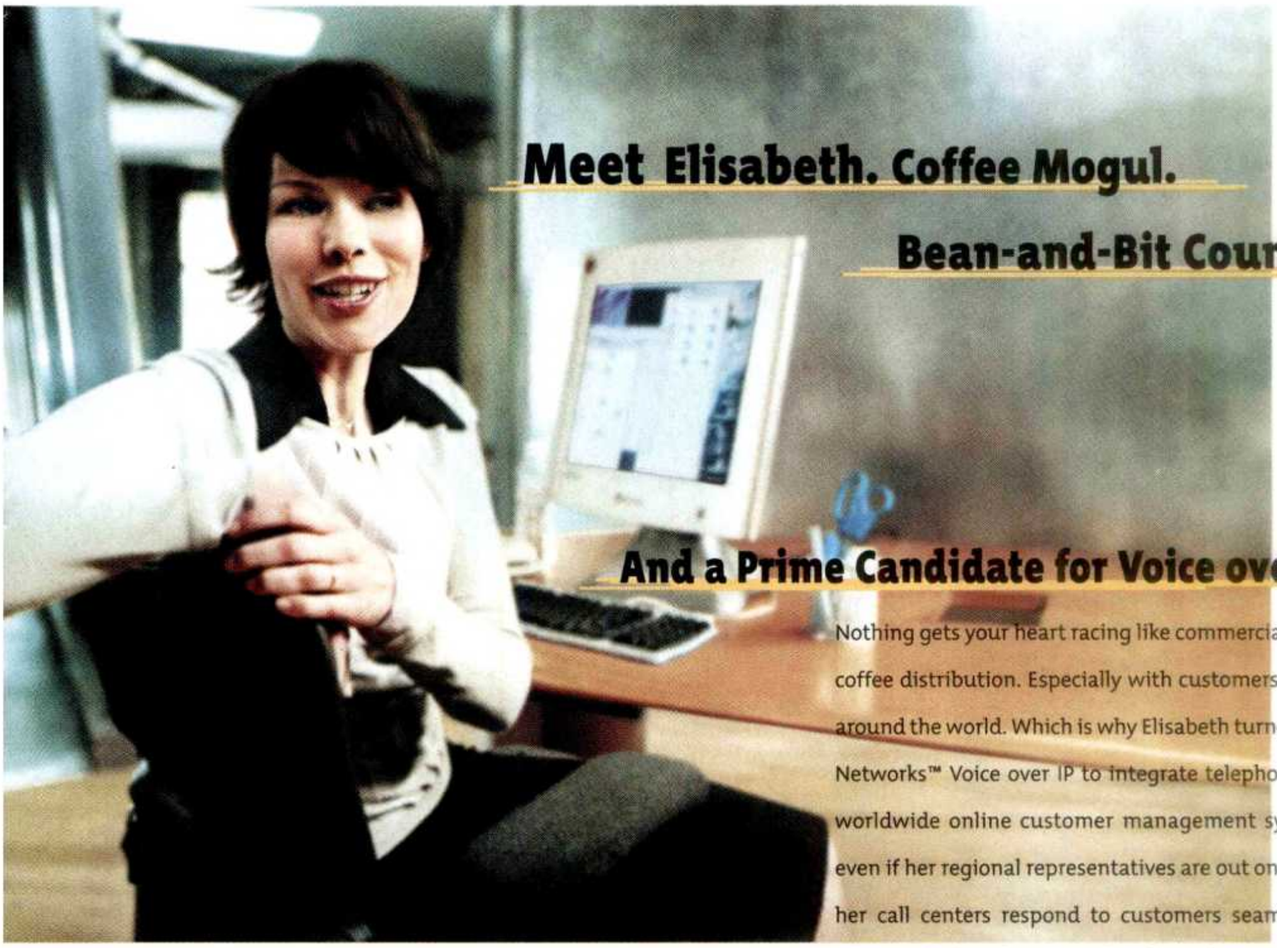
Convergence isn't about building a single network for information, communication, and entertainment. It is about doing so at the right price.

INDIA'S BILLION-PLUS PEOPLE NEED Communications. Only that can empower them. The needs of India's converged network will be unique—it will require a range of services, but at affordable rates. Thus, companies working on technologies and networks for the Indian market will have to learn from the world, yet evolve to specifically serve uniquely Indian needs better.

What does this imply? One needs to first look at what people in India can afford to spend on Communications. We know the extent of urban and rural incomes. As only a certain percentage of household incomes can be spent on telephone services, India's 80 million urban households can spend, on an average Rs 360 a month on telephones. Add expenditure on internet access and entertainment (cable TV and video on demand) and the typical urban household's expenditure could reach Rs 540 a month or Rs 6,500 per year. Basic business logic dictates that a company that wishes to tap this market of 80 million urban households will have to provide a converged computing, communication, and entertainment network at a capital cost not exceeding Rs 13,000 per connection.

The rural situation is, as one would expect it to be, different. India's 110 million rural households can spend around Rs 120 a month on telephones; Rs 60 more for internet access. In spread-put rural areas, it is difficult for the same network to provide TV/video services. At Rs 180 a month, no network can pay for itself. Ergo, shared lines (think kiosks) will, therefore, have a major role to play. Thus, the 110 million rural households can be served by some 35 million connections, each generating a revenue of Rs 540 a month or Rs 6,500 a year. Again, companies that are able to connect these 35 million connections at a unit capital cost of Rs 12,000 to Rs 13,000 stand to win.

It is clear that companies can build a sustainable business model only by providing multiple services. In other words, the convergence of com-



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spectrum. For instance, the mobile communication system cannot even provide a 28 kbps dedicated connection in the near future to each subscriber (something one takes for granted with a slow dial-up connection). True, most mobile companies advertise a faster rate, but this is a shared pipe for all subscribers in a cell or a sector.

Fixed wireless, on the other hand, can provide a dedicated 28 or 56 kbps connection today and close to 100 kbps in the near future. Therefore, it is an obvious option in dense urban areas, or wherever fibre and copper does not reach easily. As one moves to suburban areas, fixed wireless often becomes a better option than fibre and copper and in rural areas, fixed wireless becomes the best available option. Indian companies have a lead today as far as fixed wireless technology for emerging markets is concerned. The cost is low and falling rapidly. This may yet become the most cost-effective way to connect, as one expands the services to lower middle classes.

So what kind of convergence of networks and services should one expect in the near future? The backbone network is converging. Fibre access will integrate information, communication and entertainment and be the preferred mode to connect to homes and offices in dense urban areas. Mobile access will integrate telephony, messaging and low bit-rate internet services. But if one wants to download megabytes of email on the mobile, one may have to wait for several years till wireless systems beyond 3G become available. Fixed wireless will integrate telephony and internet services for homes, but will not be able to carry video on demand or television services. And cable TV or direct-to-home satellite TV is likely to remain un-integrated and provide most cost-effective TV services in sub-urban and rural areas.

VIVAN MEHRA

“Fibre access will be the preffered mode to connect to homes and offices in dense urban areas”

But can such FAN, Mobile, and Fixed Wireless network be built at a cost that makes it economically viable to reach and service 80 million urban homes and 35 million rural homes? All indications are that the Rs 12,000-13,000 band for unit capital cost can be reached if Indian R&D pushes ahead and we continue to take advantage of cost reductions by Chinese companies.

What else should one expect? People are looking for services that free them from wires. The mobile does that when one is outside home or office. 802.11-based technologies are doing the same thing at homes and offices. The future, then, could be about a converged single-user terminal. This terminal will provide mobile services when one is outside. At home or office, this will connect to wireless access points, mounted on walls and provide telephony, internet, and entertainment expected. What is equally important for the user is that these two types of connections are made seamlessly, without the user even knowing that the changeover has taken place. Only when this happens, can network convergence be said to have truly happened. bt

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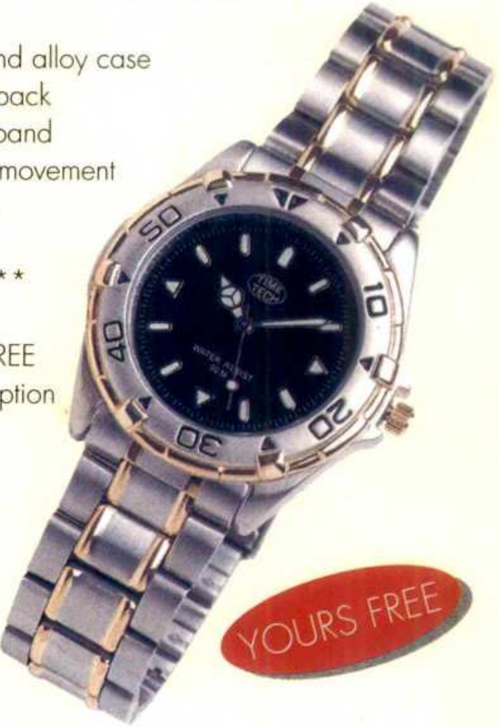

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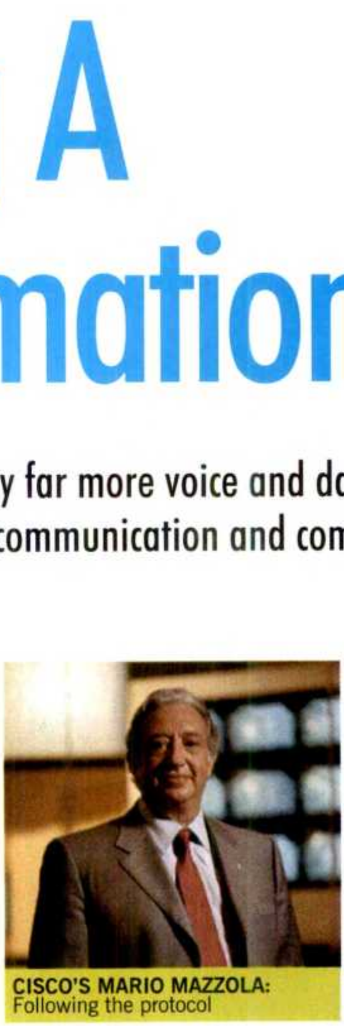
By Mario Mazzola Senior Vice President, & Chief Development Officer, Cisco Systems Inc.

Enabling A Transformation

Tomorrow's networks won't just carry far more voice and data faster than today's, they'll lie at the core of all communication and computing applications.

WHILE MOST businesses today are feeling the effects of, and adapting to, challenging market conditions, the amount of information exchanged worldwide over the internet, and even over individual company networks, continues to grow. This is not, in itself, exceptionally surprising since increased access to critical business information offers a very real competitive advantage. It does pose, however, the additional business challenge of managing multiple, complex networks effectively and efficiently as information and network-based applications continue to grow.

Fortunately, the technology industry is responding to the challenge with a new generation of networking technologies that helps manage the complexity of the network, decreasing frustration for technology leaders, and increasing overall employee productivity. Companies are now taking advantage of intelligent network services that allow for information to flow, synergistically, over one intelligent information network.



CISCO'S MARIO MAZZOLA: Following the protocol

IP: The Common Language Of The Network

As data, voice, and video converge onto a single network, most IT leaders are planning for a network infrastructure based on Internet Protocol (IP). With IP as a common language, all of our network devices will be able to talk to each other. Innovations in intelligent IP services, such as quality of service (QoS), help prioritise the traffic that runs over the network and allow devices to use the network more efficiently. This is important as voice traffic is converted to, and is sent over, a robust, packet network via what is referred to as Voice over IP (VoIP) technology.

Voice And Data Converge To Offer New Services And Flexibility

VoIP recently accounted for 7 to 10 per cent of the overall voice market, but the IP share is projected to grow to 50 per cent of the voice market over the next four years. One of the key drivers of that growth is the productivity improvements it offers, such as reducing the time it takes to add, move, or change phones at work (normally a tedious, complicated process), in addition to providing access to network applications and other information directly from an IP phone. Finally, by moving traditional PBX phone systems onto IP-based networks, companies can eliminate the expense of running separate networks for their voice and data traffic.

IP PBX phone systems offer additional advantages. For instance, today, there are unified messaging (UM) solutions available that enable the network to maintain one voice mailbox for all your calls. Systems are available that convert a voice-mail message into an email message, and vice-versa, customisable to an individual's preference. The network can have phone calls follow you automatically, eliminating important missed calls and the need to check voice mail multiple times.

"Intelligent network services allow information to flow, synergistically, over one information network"

There are more examples. If you have ever called an 800 number for customer service, chances are you have been routed through a call center. Call centres have been around for many years, but with the advent of IP-based call centres, they have become incredibly powerful and flexible tools used for customer service, ordering, and technical support.

All call centres face the task of receiving calls, collecting caller information, queuing callers, and finally routing callers to the agents on duty. IP-based call centres often provide an additional layer of sophistication in the form of integrated computer applications, which display caller information to the agent the moment they are connected to the user.

In some cases, particularly important customers need to be routed directly to specialised agents (a US$1 million investor calling a brokerage for example). The IP call centre allows this to happen quickly and easily, and provides the agent with all the users' information on their computer screen before the call is even connected.

Finally, using an IP-based call centre, a company can avoid expensive third shift costs by migrating their call centre operations from East to West as the day goes on. At first, calls can be routed to remote agents until a new shift staffs up, at which time a local call centre begins handling all the operations and call distribution.

Beyond the call centre, IP phones, themselves, are now becoming intelligent portals. Sales staff can download and view product and sales lead information directly from their IP phone. Doctors can request and review patient histories from a hospital room via an IP phone. The examples are numerous. Ultimately, IP phones will offer a seamless voice and data experience for anyone who picks up an IP phone—or any IP end-user device—anywhere in the world.

Networked Applications Will Continue To Grow

While VoIP technologies are being used in large enterprises across the globe today, video over IP technologies are still in the early stages of adoption. Video technologies provide interactive video over an IP network and converge voice, video, and data traffic over a common path. The basic protocol, H.323, builds on top of existing IP data networks, saving money and scaling to larger deployments than historical ISDN-based installations. As networked video applications continue to grow, it will be easy to see how they will transform the way we communicate.

Today, network video products and technologies help organisations gain a competitive

edge. Network video technologies employ the latest advances in computer networking and multimedia. They support a range of applications like video broadcasting, video on demand, and video conferencing for information-intensive activities like distance learning, collaborative meetings and business TV.

Cisco IP/TV is a comprehensive network video system, which transmits video, both live and prerecorded, to PC desktops over IP networks. Cisco IP/TV offers organisations an efficient and timely way to deliver information to employees.

"Ultimately, IP phones will offer a seamless voice and data experience for anyone anywhere in the world"

Clearly, as video over IP becomes more mature, it will have a significant impact on the entertainment and service provider industries. Both will be faced with tremendous opportunity to capitalise on the flexibility associated with video over IP, one from a content development perspective, and the other from a content delivery perspective.

This particular example highlights the fact that there will be increasing linkages between enterprise networks and service provider networks in the future. In fact, the managed services market, in which companies outsource part or all of a networking service to a provider, will increase from US$45 billion in 2002 to between $100 billion and $130 billion in 2006 according to a research by Nielsen-Acrobat and IDC. As networking demands continue to increase, service providers are expected to experience a noteworthy increase in the revenues derived from offering customised value-added network services, such as video and content management, hosted services, and managing virtual private networks.

NETWORKS OF THE FUTURE

- Will be built around Internet Protocol
- Will treat voice and data similarly
- Will see radical new applications like video over IP
- Will increasingly be mobile
- Will see the emergence of new security standards

Networks are also expected to play an important role in areas such as storage. Technologies such as storage-area networks, or SANs, are already expanding by more than 50 per cent year-on-year. Inaccessible information is of little use in today's business environment.

Wireless Networks Will Offer Continuous Coverage

The results of a recent survey conducted by research firms Nielsen-Acrobat and IDC of 521 IT decision-makers indicate that 60 per cent of the respondents want to invest in internet-based applications over the next 18 months. So, while the demand for internet-based applications and storage requirements grows, so does the need for ubiquitous access to the network.

Extending network access to mobile employees at work, at home, on the road has a positive impact on productivity, collaboration, customer responsiveness, and business resilience. Networked mobility allows us to communicate, gather information, and get and give directions, as they are needed.

Wireless technologies resolve this paradox. From mobile telephones to personal digital assistants (PDAs), wireless home networks, and direction-finder services in automobiles, internet mobility is reaching consumers. People can now access email through a wireless network at the airport, or receive stockmarket

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updates and news via their mobile phone. And with the convergence of data, voice, and video onto a network, a whole new era of powerful applications and services is dawning to meet the instant information needs of people on the go.

With the rapid expansion of wireless technologies and the significantly lower costs for wireless deployment, companies will establish overlay wireless networks consisting of complementary wired backbones and wireless access segments. Ultimately, a mesh of wireline, wireless via macro- and micro-cellular technologies, and satellite technologies will cover the whole globe for us.

We will, therefore, be able to access the network whenever it is needed. This could be access to the internet via GPRS or 3G technologies, or access to an organisation's network via a VPN solution. Accordingly, a number of devices have been, and will continue to be, developed that provide access to networks through wireless technology. Ultimately, we will have laptops with wireless cards, high-end mobile phones, and PDA devices that support voice, video, and high-capacity data transmissions.

"Extending network access to mobile employees has a positive impact on business resilience"

Security Is Key

Underlying all these technologies is the demand for pervasive security. Today's networks are more extensive in terms of geographic reach and the internal and external communities they interconnect. They are more complex, support a wide variety of applications and services, and handle converged data, voice, and video traffic across wired and wireless connections. They are also increasingly open and are a business tool that touches both customers and suppliers. In fact, the division between private and public networks has blurred.

The extensive, complex, and open nature of the network environment increases the need for robust and comprehensive security because any point the network touches must be protected, as well as protected against. Embedded, integrated security is required for protection. It also must be transparent to the user and application.

The goal is to deploy a set of security capabilities that together create an intelligent self-defending network that can identify attacks as they occur, alert as appropriate, and then automatically respond, without user intervention. Fortunately, these types of security technologies are now available and will continue to improve so that a company's precious information and networking assets are protected.

Anything Is Possible

As companies build their futures, they will create combinations of internal fixed and mobile networks, service provider networks, and the internet. If designed properly, the combinations—their functions and capabilities—will be transparent to all. This will create unprecedented opportunities for exploring new and innovative ways of improving productivity and creating new forms of revenue.

So, I am optimistic about the future and the exciting applications that will emerge to make our lives more interesting and rewarding. bt

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THE network

By Pranav Roach | President, Hughes Network Systems, India

The Network Of The Future

Amid all the predictions of how life will revolve around the internet, we would do well to remember that its evolution will by no means be linear—or even predictable.

THE PROPHETS OF THE MODERN AGE predict that the internet will soon become the single biggest global asset (above nuclear bombs and oil!) in the days to come. As the internet moves towards becoming the single unifying fabric of the world; as enterprises move their entire business models online; as more and more small and medium businesses realise the virtues of global sourcing and selling; as service providers realise the multiplier benefits of an IP-based service network, and as more and more individuals get on internet for working, playing, learning and living, the internet will become the core of our lives.

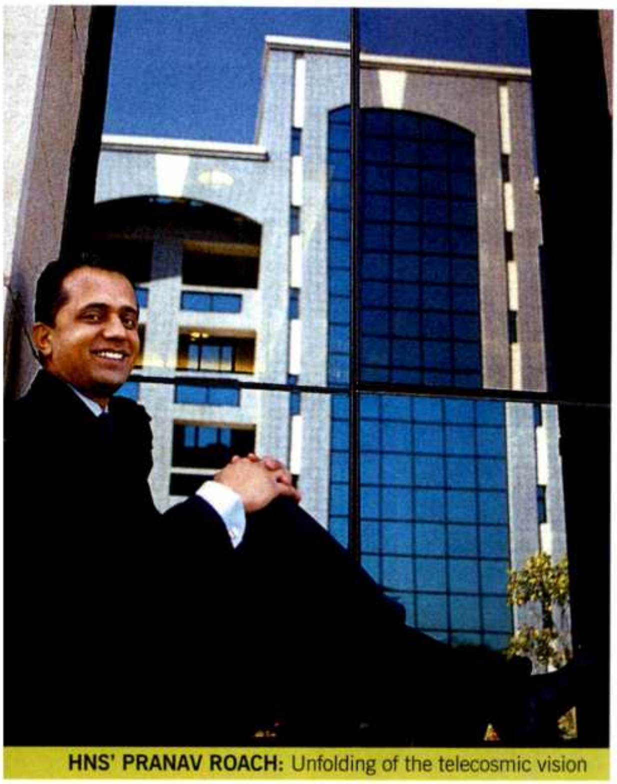
Much has been said about the promise and potential of the internet—even to the extent of referring to it as the biggest revolution mankind has seen since the Industrial Revolution. However, the last two years have proven that the Internet Revolution is not quite on a linear progression path.

We used to think of the future as a railroad track headed toward the horizon in a straight line. Something might derail the train, but the tracks would remain straight. Today, the idea of a straight line toward a single future is laughable. Exponential change has changed the way we think about growth, profit, even survival in the 21st century.

Networks have been the prime movers of this change. By making information access symmetrical, telecom has caused business decision-making simpler—leading to faster, more efficient processes.

In, *Telecom—How Infinite Bandwidth Will Change the World*, futurist George Gilder describes a world enabled and defined by new technologies that will make communication universal, instantaneous, unlimited in capacity and, at the margins, free. In this version of the new economy, bandwidth will replace computer power as the driving force of technological advance.

The telecosmic vision of nearly infinite waveborne bandwidth does for communications what Moore's Law did for computing. It defines the direction of technological advance, the vectors of growth, and the sweet spots for finance. And this



VIVAN MEHRA

HNS' PRANAV ROACH: Unfolding of the telecosmic vision

is only the beginning. Networks rapidly will become an extension of oneself. As availability, affordability and applications mature, broadband communications will be the given of tomorrow.

What Does It Mean For Us?

Telecommunications networks are a critical indicator of the health of an economy. Industry analysts have traced a strong co-relation between economic growth and network readiness of nations. This means that telecom is not just another industry vertical—it is an entirely different market with unique trends, and having profound impact on the lives of citizens.

The 100-year-old global telecom industry has gone through tremendous reorganisation over the last five years. Protocols such as IP have matured, and provide an alternative to existing TDM networks. Wireless voice communications, internet-based data traffic and broadband communications, terrestrial and satellite-based, have changed the face of the industry in the last decade.

These technologies of fibre optics, high-spectrum satellite communication, and wireless networks, together comprise the telecosm. The telecosm makes bandwidth—capacity to deliver information—the defining abundance of a new era, eclipsing even the abundance of computing power. It makes men into bandwidth angels, lengthing their lives by some fifteen years. Mankind is primed to switch into the "All-Digital, Always-On" world.

All-Digital, Always-On

In the not-too-distant future, networks will be borderless and seamless. The two-key transmission media—satellite and fibre optics—will reach out and provide a redundant, reliable global footprint. Satellites and fibre-optic technology are perceived by many to be competitors, but networks of the future will be hybrids, with satellite and fibre providing the functions for which each excels.

For instance, some interactive applications may be better suited to fibre-optic cable, but most broadcast applications can be served efficiently by communications satellites. For all the noteworthy features of fiber-optic cable, it will never have more than two ends. Still other applications will be served by a combination of the two.

The network of the future, hence, will be media independent. Digital communications, video, audio and data will be "converted" into packets and carried over a single pipe capable of delivering high-speed communications. IP will emerge as the common denominator of digital communications.

The rise of networks can no longer be halted—and the reason for this is that they make the individual a player in the global society.

We live in a world of networks. Whenever new, dynamic structures form in business, politics or society, networks are always involved. The global digital network of the 21st century will eventually attain the significance of the factory at the time of the Industrial Revolution. Just as people were compelled to abandon their rural lives for the strict time-discipline of machines and the urbanised areas around their factories and then fought for and won new forms of government, society will reorganise in the web of digital data links.

Networks are leading us into a future in which there is no up and no down. Networks are not controlled by heirarchies, headquarters or centres, but by nodes and flexible connections. For networks are nothing more than combinations of individual nodes.

And yet, as a social phenomenon, networks are by no means new. Humans have organised themselves in networks since the darkest days of prehistory. They have existed at all times, in all cultures, and in a multitude of forms. Yet it is only now, in the information age, that networks have developed into world-encompassing information highways with the aid of new technologies.

At the moment, there is a war of competing technologies being waged between various telephone carriers, back-haul providers and satellite solution providers. However, each of these "last mile" providers will find niches wherein their solutions provide the best fit and seamlessly co-exist with others.

"Digital networks will eventually attain the significance of factories at the time of the Industrial Revolution"

For instance, the cable television industry has significant experience with video services, and owns the much-touted "big pipe" installed at subscriber homes and offices. The risk of transition for the cable industry to add voice and internet services to its video offerings is far less than the risk for telephone companies attempting to replicate the cable industry.

Similarly, satellite communications will remain the principal means of bringing telecom to the majority of the world's people. Technologically superior next-generation satellites will have the capacity to transmit as much as 10 gbps.

Demands on networks are rapidly increasing as more enterprises and home users demand access to greater amounts of information. Networks must not only have higher capacities but be able to handle different types of data, including voice packets and video traffic. At the same time, the utilisation of more connections and data types increases network vulnerabilities (by adding new entry points), which must be addressed in a security plan.

Apps-Intelligent Networks

Multi-service networks of the future will be indifferent to access modes and transmission media. Only applications will be important—user needs will dictate the flow of information. Convergence of data communication and voice will create a flexible network structure. Enterprises will adopt a multitude of converged communications services such as Unified Messaging, Intelligent Call Management to drive key internal (finance and training) as well as external (customer care) business processes.

Enterprises will opt for multi-service broadband network architectures, which will offer total solutions such as wireless and wireline high speed Internet access, secured and managed VPNs, VoIP and many other web-applications.

End-users are demanding more than just a voice service over telephone. They want to play, work, surf, download, stream, and conference—rapidly, at all times of the day, and at the same time.

A global network of networks will be created which will bring together all enterprise and service provider networks. It will mean synergies for service providers, helping them evolve into one-stop shops for information, communication and entertainment for the end-consumer.

Why Do We Need Them?

The customers of today are dissimilar in profile and behavior, and they no longer demand the same basic services. So the key challenge facing operators now is how to provide the bandwidth and services that subscribers want, and yet make a profit? Or how to offer integrated specialised communications services and content at a manageable cost?

The answer lies in the concept of "Mass Customisation". This means delivering everything that is asked for by anybody willing to pay for the value. The key will be to deliver the entire range of end-user telecom services independent of the mode of access available to users who demand the service.

Moreover, enterprises must address all of these issues with less money and fewer resources. As a result, companies need to carefully plan their network investments by analysing market trends, such as the growing demand for bandwidth and the increased need for wireless access and transmission by a mobile workforce.Corporations also need to analyse their needs by talking to employees at remote offices, mobile workers, telecommuters, customers, partners, and suppliers and plan their strategy for network implementation and security accordingly.

"The nearly infinite wave-borne bandwidth will do for communications what Moore's Law did for computing"

Creating These Networks

As customers seek value-added services, content, applications and services will create larger revenue streams for companies than the simple access, transport and communication services available today. Service providers that move early into the broadband access market will soon be able to leverage a large customer base to sell content and applications.

Essentially, Service Providers have to provide attractive, timely hassle-free services that work. The ability to create effective, converged backbone networks to ensure operational standards and service delivery to customers, together with a pragmatic approach to technology choices, are critical to success. The future of communications is convergence – and it revolves around the consumer.

The impact that "All-Digital, Always-On" networks will have promises to be profound and could well influence the future of mankind. The information revolution may enable the rise of the Network Organisation. The "Network" appears to be the next major form of organisation — after tribes, hierarchies, and markets — to redefine societies, and in so doing, alter the nature of conflict and cooperation.

The rise of networks will effect fundamental changes in society and polity. Networks hold out the promise of reshaping sectors of society – concepts such as "electronic democracy", "networked corporations", "global civil society", and even "network-centric warfare". Other likely effects are broader and portend the reshaping of societies as a whole. Some futurists believe it won't be long before we see the coming of "the network society", "the network age", and even the redefinition of nations as "networks". bt

By Gourish Hosagady CEO & Managing Director,
SAS India

Are You An Intelligent Enterprise?

In a world of harsh competition and razor-thin margins for error, business intelligence is all that will stand between a company's success and failure.

THE WIRED WORLD WILL SOON GIVE WAY to a wireless one. The era of physical connectivity will see a growing focus on service-oriented application integration standards and architectures. The world will increasingly realise the importance of embedded computing power in every day objects. In a harsh environment, any organism will adapt and evolve...eventually. But modern business demands a high rate of evolution. Traditional strategies for gaining marketshare and growing revenue are no longer sufficient. In markets where new products and services can be copied within days, experience will be the differentiator. And being able to draw on that experience using a business intelligence framework will be the key to survival. This is what will differentiate an intelligent enterprise from the rest of the pack.

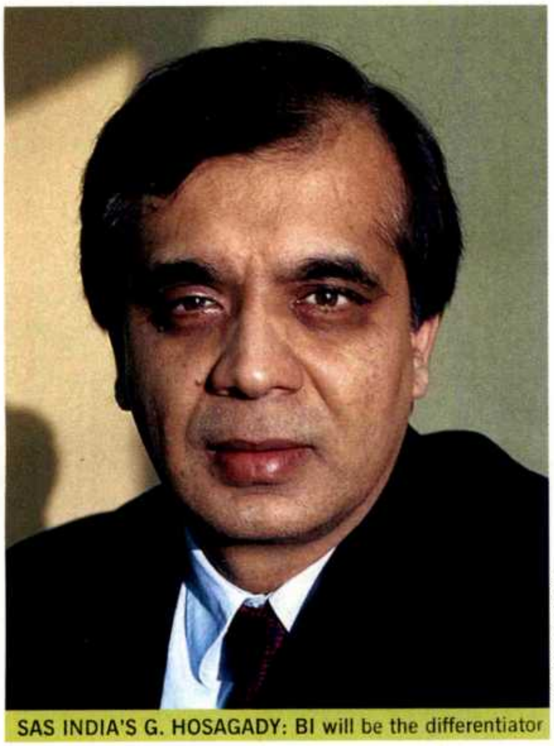
What Is Business Intelligence?

In a scenario where there is little margin for error, it is critical that enterprises have the ability to quickly align and economically grow their technologies to meet the challenges of the marketplace. The business needs to be smarter in allocating resources and attracting customers to attain its profit targets, while maintaining low risk. One thing that can help the business do just this is the implementation of technologies aligned to business needs.

Typically, business users and decision makers have a hard time finding the information at the right time to meet their needs. The information exists, but one needs to access the information. This is where business intelligence (BI) comes into play.

What exactly is BI? It is about using accumulated information to create new knowledge and to respond to the challenges of business environment. It is about turning raw data into knowledge that helps make informed decisions.

BI is, therefore, an integrated solution that provides for a market-leading data warehouse solution to create and deliver high quality, consistent, and accurate information. It allows analysts to provide insights and knowledge about the enter-



UMESH GOSWAMI

SAS INDIA'S G. HOSAGADY: BI will be the differentiator

prise based on past, current, and forecasted information. Finally, it is the market leading business intelligence framework to exploit and deliver the information online at the right time and in the appropriate format to enable responsive informed decisions. It is a key component of an end-to-end intelligence creation and delivery process.

The Intelligence Value Chain

To understand BI in its entirety we must understand its role in the Intelligence Value Chain (IVC). The IVC articulates the key components of the Intelligence Architecture. The first step of the IVC is the development of an action plan. This considers how to achieve the defined business objective and how existing informational and technology infrastructures can be leveraged along with expected benefits.

The second step is extracting, transforming, and storing the important data gathered. By focusing on specific business objectives, one can identify what is needed and what isn't. Data that adds value is cleansed, integrated, consolidated, and transformed into a useful, reliable source.

The third step is Intelligent Storage. The creation of intelligence from massive quantities of data requires flexible storage architecture. Different types of intelligence creation require structures that are different from classic databases—relational for present, multidimensional for comparison, tables for analysis and prediction.

The fourth step is BI. It becomes a key component of an end-to-end intelligence creation and delivery process. BI encompasses financial management solutions, risk solutions comprising credit, market and operational risk, and finally CRM solutions.

Financial Management Solutions

Let's consider the issues at hand for a chief financial officer. Consistency and reliability of information is of foremost importance today. Finance executives are challenged with predicting, analysing, and reporting performance in a turbulent and constantly changing global economy. Speed, quality, and integration of data are paramount to staying ahead in business.

In addition, there is a need for traditional financial measures, such as income statements and balance sheets, to be combined with the value and profitability of an organisation's customers, products and services, supplier relationships, and employees. There is a need to get an overall balanced view of the business. This is where BI comes in to play.

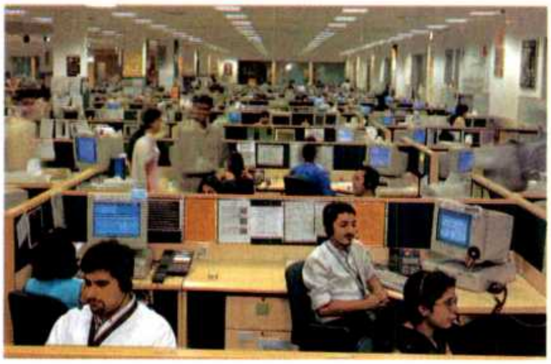
The Financial Management Solution provides the CFO a single window with built-in financial intelligence to address the entire spectrum of analytic needs like budgeting and planning, financial forecasting, reporting, analysis, and cost management. It allows the CFO to grow from being a pure policing entity to becoming a partner in the organisation allowing him to prioritise his areas of focus. It gives the CFO the means to provide accurate revenue and profit guidance, combining the judgement and experience of operating managers with scientific techniques, centralising the flow of information.

Risk Management Solutions

Market risk is defined as the risk of loss in a value of a portfolio of instruments that is caused by adverse movements in financial markets. Currently, there is a need to be able to quickly and accurately create risk measures for senior level management and the trading organisation. Existing systems range from spreadsheets to other risk management products that are not flexible and extensible enough for an enterprise-wide risk management solution. Further, because the data repositories are very large and disparate, the biggest challenge is bringing together or transitioning from existing systems into a single, enterprise-wide solution.

The risk management solution analyses the data that mark the firm-wide positions to market, thus creating the base case for risk analysis. Marking to market is the process of revaluing the existing portfolio using the current prices, rates, and factoring in risk variables. This is a base case or "current state of the world". Then stochastic processes are used to create additional market scenarios. These scenarios are "future states of the world". The firm-wide portfolio is re-valued at each new scenario. The difference between the base case, mark-to-market valuation, and the scenario valuations is the basis to arrive at a single measure of risk. Similarly, for credit risk, defined as the loss in value or cost of replacement if a "counter party" in a derivatives transaction has a change in credit rating or fails to meet their obligations as a "counter party"—risk management performs current and potential exposure(s) and can be configured to support various credit metrics to arrive at an enterprise wide risk measure.

> "BI is about turning raw data into knowledge that will help companies make informed decisions"



Combined with the projected cash-flow statements, basis results derived from FMS, which are updated on the basis of rolling forecasts can provide a sound basis for dynamically managing the market and credit risks.

Operational risk management is an evolving concept. It is defined as risk of expected or unexpected losses due to process, people, system failure or inadequacy and external events. The intelligence gathered from the operational risk solution becomes an input for the financial management solution. This ensures reorganisation of expenses that may come into play to match the associated costs elements specific to operational risk and the required capital cushion. The driving forces for operational, market, and credit risk management include a regulatory push, a focus on the enterprise-wide risk management framework, commitment from the top management and recent repeated occurrences of high loss events.

Thus, by leveraging financial management and risk management solutions, management can accurately forecast the company's performance.

Customer Relationship Management

In India Customer Relationship Management (CRM) is perceived as purely operational i.e. capturing data from all customer touch points like the web, call centres, direct mail campaigns, etc, and investigating at a transactional level. The missing piece is Analytical CRM.

Analytical CRM involves analysis of data gathered by operational CRM systems for comprehending business performance parameters like customer risk, customer profitability, lifetime value, behaviour, attrition, and more. This is 360 degree CRM that allows the enterprise to gain not only valuable insights into the best marketing strategies for success, but also the capability to identify profitable customers, potentially profitable customers, customers likely to leave, as well as new customer opportunities. Through the deployment of analytics enterprises can create customer segments and profiles, determine the appropriate content and improve the successes in retaining and improving profitable customer relationships at all touch points.

The Intelligent Enterprise

There is no doubt that BI has increased in importance as enterprises recognise the need to snap out of the paralysing condition known as "infoglut"—an overwhelming information and data overload. Infoglut results from a mismatch between an enterprise's ability to acquire and collect information and its ability to read, understand, and digest data, to make strategic business decisions across the enterprise. Statistics show that over 80 per cent of organisational data remains unused!

A majority of enterprises are faced with the daunting task of synchronising the dynamic external and internal environment to sustain and increase profitability, fight increasing competitive pressures, manage infoglut, decrease the widening gap between the infoglut and data analysed, and drive decisions on the intelligence gained from analytics—all at once.

Analytics will inevitably gain increasing importance. This will be driven by the exponential growth of data, fuelled by new customer and supplier interaction platforms such as internet, call centres, interactive TV, and mobile devices. What will be of paramount importance is the decrease in gap between infoglut and data analysed. It will be equally imperative to act on the insights gained from data analysed. Given the current trend, it is possible that these gaps may widen. If so, this will endanger the company's position to maintain it's agility.

> "It is about smarter resource allocation and attraction of customers to attain profit targets"

A company that adopts BI early on is in a better position to succeed in the future than a company, which either implements BI late in the game or not at all. This is because technology will be more adept at dealing with business problems than humans. In this environment, the Intelligent Enterprise will survive. Information flow will be real time and centralised. The enterprise will not only manage information efficiently, but will act on the insights provided by data analysed from both external and internal sources. It will perform analyses from unstructured data sources. It will have advanced analytics ranging from financial forecasting to risk management and customer management.

To be an intelligent enterprise, a company needs a solid business intelligence platform—driven by analytical applications—that it can use to base its projections and strategies. Without it, management teams are forced to make best guesses based on subjective information, hunches.

To quote Warren Buffet: "To finish first, you have to first finish." Are you an Intelligent Enterprise? bt

By **Rajiv Kaul** | Managing Director, Microsoft Corporation India

A Peep Into The Future

What makes a company weather the stresses of time and change? The answer, strangely enough, may not be technology but people.

THE AXIOM "CHANGE OR RISK BEING LEFT behind" has never been more appropriate than it is today—rapid change has emerged the only constant behind agile and successful businesses. Pressure on enterprise managers to embrace change is immense with rising expectations, shrinking organisational structures due to increased connectivity and blurring of competitive boundaries.

The fight is just getting tougher. Businesses are desperately seeking ways to sustain high levels of growth. However, a high level of growth is not the end of a company's worries. There is the far more critical organisational issue of becoming a great company. A great company that is successful and respected not just today, but over the next 50 years. I believe that the foundation of a company is its people, their values, how they work not only inside the company, but with customers, partners, industry, and governments. If you get this right, you've built the foundation for a truly great company.

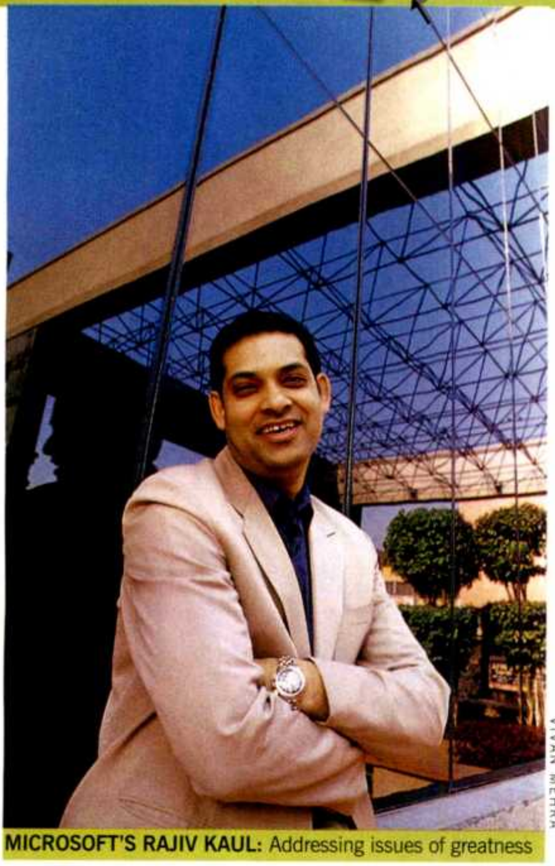
While there is no set formula to achieve this, there are a few attributes that are common across the new breed of successful future-ready companies.

To begin with, the enterprise of the future will possess an all-encompassing vision of its role in the business ecosystem. It will treat competitors not as a single business, but as a web of co-operating businesses and plan its strategy with respect to every other business in its environment. At the same time, the organisation will be in perfect sync with the requirements of its customers, partners, suppliers, and employees, and will strive to integrate these separate audiences into a seamless whole.

It is also important that the organisation be agile in operating and adapting itself across the entire business process at amazing speeds.

When I talk about speed, I am referring to two things. First, increasing the speed of business operations. This implies increasing connectivity to establish direct linkages that operate in real time not only with customers and suppliers, but also with the customers' customers and the suppliers' suppliers.

This will lead to the shrinking of the whole supply chain and product delivery modes, ensuring that there are minimum delays, shortages, and excesses. The enterprise will intelligently leverage the power of IT to outsource, collaborate across diversely-spread teams, and distribute decision-making so that it operates faster and more efficiently.


VIVAN MEHRA

MICROSOFT'S RAJIV KAUL: Addressing issues of greatness

The second aspect of becoming a high-speed business is increasing the speed at which the business can adapt. This can be achieved by being a 'plug-and-play' enterprise. This refers to an organisation, which has a number of teams working together as individual modules, which can be used in several combinations to achieve a variety of results. Yet again, the back-end for this capability will be a highly adaptive IT infrastructure. This will result in shrewd management of boundaries by an enterprise, including within its business all the activities where it is supreme and outsourcing those activities where it is not.

Technology will play a pivotal role in driving this agile enterprise. And there's more opportunity today to transform the way people work, live, learn, build, deploy, and manage the applications.

Today's trends will bring forward tomorrow's innovations. A combination of innovative technologies will be developed to reach out to the end customers. Artificial Intelligence (AI), where computers will be used as a customer contact channel and will be able to communicate, in turn, with virtual intelligent personal assistants or smart devices possessed by the customers. These devices will store relevant customer information such as personal preferences, financial details, and physical profiles, which will be readily accessed by the AI engines.

Furthermore, wireless communication systems will connect devices in a customer's home or office with the supplier, automatically tracking and managing supplies that need regular replacement using radio tags and magnetic product codes.

The bottomline is that the usage of software will be pervasive as more and more of the intangible value of a product will be available in a downloadable format. But if it was the PC 20 years ago and the internet five or six years ago, it's XML which will be the next defining change.

XML will be the *lingua franca* of computing. It will be the basis on which systems work better with systems, people with people, businesses with businesses, businesses with consumers. It will raise the level of integration and connectivity. And a defining attribute of a great enterprise in the future will be its ability to deploy intelligent business applications that have added functionality and tighter integration with other solutions. Business Intelligence applications will be embedded into day-to-day business operations to support automated decision-making across the integrated enterprise. Also the line between CRM (Customer Relationship Management) and business intelligence will become non existent with CRM suites providing real business intelligence beyond mere measuring and reporting, doing data mining and reasoning on what exactly is driving numbers.

Another important attribute of the enterprise of the future will be an inexhaustible passion for creating and delivering value. Apart from designing products that map the existing needs and preferences of customers, it will be committed to produce systems of products that are constantly tailoring themselves more closely to the customers' changing desires. This would imply an extreme form of product customisation whereby new subcategories or niches are created within each popular category of product usage.

In conclusion, I would like to reiterate that the future is not just about being a good enterprise but a great one. And a great enterprise is one built on strong foundations of great people with great values, focused on being agile, flexible, and raising the bar on the level of excellence in customer connection and expectations, time on time. bt

By **Alok Srivastava** Sector Manager, Retail & Consumer Products Industry, SAP India

The Future Of The Enterprise

Successfully leveraging technology will above all else mean collaboration, says an enterprise software evangelist.

The head of a corporate business unit is travelling and is inaccessible to his sales manager. The sales manager wants his chief to approve of a special price he wants to offer a large customer; if he doesn't get back to the customer soon, he could lose an important order. If only he could send a price approval request to his boss' mobile phone from his PC, route the reply to the company's enterprise resource planning system, and watch the follow-up documents automatically generated.

Think of a sales force of 1,000 moving across the country equipped with mobile devices, visiting thousands of small and medium retailers, booking orders on-line, and answering queries on stock position and account receivables, and all this being linked to their ERP, to avoid duplication of data entry at the end of the day.

Think of a projects company (it could be an Engineering & Construction enterprise or an IT services company) where resources are spread across multiple projects across continents and the resource manager has to keep tab on their availability, check leave and travel approvals and monitor critical project deadlines. He does just that using exception analysis and workflow management. Only, everything is through mobile devices that his entire workforce uses and flows back seamlessly into their ERP.

Imagine a sudden change of travel plans in a road warrior's schedules. What if he had the ability to book fresh tickets and file expense accounts even before he returned to his office and parallely, his accounts department would process his claims.

WHAT YOU HAVE ABOVE ARE REAL examples of how companies are using technology. These corporates have had the vision to adapt leading-edge technology to meet business challenges. Corporates live in a complex world. They are entangled in acquisitions and mergers; their vision embraces globalisation; they have multiple business models; and their information systems and business partners could multiply rapidly. In many industries, more than 70 per cent of a

SAP's Alok Srivastava: Seamless collaboration is it

UMESH GOSWAMI

product's unit cost comes from outsourced components from partners and subcontractors scattered around the globe. The need for sharing accurate and timely data, both internally and externally, has never been greater, yet our primary business drivers remain focused on the three classic R's: reduced time to market; reduced cost to market; and getting the right product to the market.

Indian corporates too are looking at outsourcing as a cost-effective option and exploring ways to build stronger and newer relationships with their changing eco-system—suppliers, distributors, contract manufacturers, design and other consultants, customers, even their employees.

To exploit this huge potential of seamless "collaboration" over the net, SAP and other leading edge technology companies are focusing on delivering this promise through new technologies, applications, and processes.

SAP has built a comprehensive mySAP Business Suite comprising the core application and information backbone of an organisation—financials, logistics, human capital, management business intelligence, and knowledge management. The extended business application suite that includes Supplier Relationship Management (SRM), Product Lifecycle Management (PLM), Supply Chain Management (SCM) and Customer Relationship Management (CRM) complements this backbone.

This comprehensive mySAP Business Suite is backed by SAP's new technology SAP NetWeaver, a platform that provides the foundation to enable an enterprise services architecture. SAP Enterprise Portals, SAP Business Intelligence (BI), SAP Exchange Infrastructure (XI), the SAP Web Application Server and Mobile Engines & Master Data Management (MDM) services are all part of NetWeaver. This will also support collaboration and knowledge management. SAP NetWeaver is interoperable with Microsoft.Net and IBM WebSphere providing customers flexibility to manage heterogeneous infrastructures, minimising complexity and reducing total cost of ownership. The mySAP Business Suite also delivers the following:

mySAP Supply Chain Management

The enhanced mySAP Supply Chain Management is a solution designed to help manage the transition from traditional supply chains to adaptive supply chain networks, where suppliers, manufacturers, distributors and customers all work together. It also takes care of capturing all critical events in complex supply chains and gives alerts for timely corrections and optimisation.

mySAP Supplier Relationship Management

mySAP Supplier Relationship Management (SRM) maximises the return on relationship with all suppliers. It covers the full supply cycle, from strategic sourcing to operational procurement and supplier enablement, leveraging consolidated content and master data. With mySAP SRM, companies can optimise supplier selection, compress cycles, and devise meaningful sourcing and procurement strategies.

mySAP Customer Relationship Management

Marketing-sales-service-analytics. Only one CRM solution brings all these together. mySAP Customer Relationship Management empowers companies to deliver value and achieve profitable growth. The solution connects front- and back-office functions into a single, customer-centric operation. It enables collaboration among employees, partners, and customers by providing personalised information from multiple data sources and business processes.

mySAP CRM is the only CRM solution that connects employees, partners, processes, and technology in a closed-loop customer interaction cycle. So we can convert prospects into first-time buyers and first-time buyers into long-term customers.

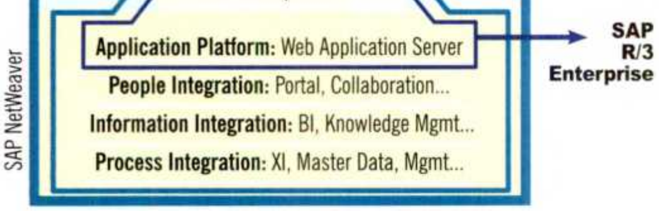
> “The need to share accurate and timely data, internally and externally, has never been greater”

mySAP Human Capital Management

mySAP HR is a comprehensive package of strategic HR functions, including a unique global design, international features and payroll solutions for more than 35 countries. mySAP HR provides human resources professionals, executives, and line managers with solutions to optimise companies' investment in their workforce. mySAP HR enables you to attract, retain, and motivate the best people.

The complete range of capabilities and processes needed for running a global business can be found in the four key functional areas of mySAP HR: Employee transaction management, employee life-cycle management, employee relationship management, and workforce analytics. The package also helps to motivate and retain employees better by providing an on-line and intelligent two-way channel of communication.

A COMPLETE PORTFOLIO


xApps
PLM
SCM
SRM
CRM
Human Capital Mgmt
Financials
Admin & Operations
Application Platform: Web Application Server
People Integration: Portal, Collaboration...
Information Integration: BI, Knowledge Mgmt...
Process Integration: XI, Master Data, Mgmt...
mySAP Solutions
SAP NetWeaver
SAP xApps
mySAP Business Suite
mySAP ERP
SAP R/3 Enterprise

mySAP Enterprise Portals

The mySAP Enterprise Portal unifies the applications, information and services existing in an enterprise into one system. It is a personalised, interactive gateway, providing employees, partners, suppliers and customers with single-point access. The mySAP Enterprise Portal can be accessed through multiple devices from anywhere and eliminates traditional barriers to productivity.

SAP also offers portal content targeted specifically to the users' function. SAP's business packages streamline access to the processes that users need most. The package has been designed to provide increased efficiency, timely decisions, and improved customer service. Above all, these are extremely simple to use, intuitive, role based and secure.

mySAP Mobile Business

mySAP Mobile Business solutions enable enterprises to mobilise their existing investment through a universal platform and ready-made scenarios to all popular devices in both connected and disconnected environments.

Its mobile access focusses on the user experience to advance adoption, reduce training costs, and optimise gains.

Its applications provide tools that span multiple systems and include a range of processes, information and knowledge. It also provides a reliable infrastructure to support applications in connected and disconnected environments.

SAP Hosted Services

Through SAP's hosted services, SAP and its partners will deliver value-added business services. We'll operate customers' e-business platforms, customise the applications to fit customers' business, maintain and upgrade the software and deliver smart, secure, easy-to-access solutions.

As a result SAP customers have no need to invest in dedicated staff, cost-intensive projects, or continual equipment upgrades. Our professional implementation and support personnel will handle it all, and they will be there to provide continuous service, worldwide.

Exchange Infrastructure

Creating Exchanges to Generate Real Business Value: In today's economy, it's vital to extend your business relationships and processes beyond the boundaries of the traditional definition of the enterprise. Additionally, it's also important for organisations to participate in relevant public exchanges. Exchange business models have matured into successful entities that offer their participants services that run in conjunction with enterprise systems and provide immediate value to their participants. And SAP delivers an exchange that large corporates and manufacturers or neutral exchange operators will find easy to implement and manage, and that all participants will find equally easy to use. Exchanges provide a platform and value-added services that drive business processes across multiple software systems, allowing multiple organisations to buy, sell, and conduct business across communities.

> "Corporates are exploring ways to build new relationships with suppliers, distributors, and designers"

SAP Exchange Infrastructure combines e-procurement and e-selling with trading services to reduce product development times, improve customer relationships, and increase productivity. As a result, sourcing, procurement, and analytics are all integrated into a seamless environment.

XApps

SAP's new xApps (cross applications) are designed to automate and support a company's efforts at continuous business improvement. Building on existing applications within and across enterprise boundaries, xApps connect, automate, and improve specific business processes to fuel business innovation. As such they strongly leverage previous investment information technology.

Technically, a xApp is an application that sits on top of other applications and enables a cross-functional process that is also composite, collaborative, and integrative. xApps depend on an application-agnostic infrastructure which is decoupled from and independent of the contributing applications. Here SAP builds on the SAP Integration Platform, which combines the benefits of a portal, business intelligence, and exchange technology into an encompassing unification platform. xApps can thus augment existing information technology assets while allowing new business processes to be composed for the first time. This newly created—composite—business logic is then an orchestration of input from disparate, distributed sources. Running your business was never easier.

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VSNL has pioneered corporate telecom solutions in India and is today the preferred service partner of India's best corporates, big and small. Now these services are backed by the strength and commitment of the TATA Group and are offered as TATA Indicom.

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R K SWAMY/BBDO VSNL 9119/BT

By **Hemant Apte**

Chief Manager (Automation Systems), Siemens

Industrial Infotech Is The Secret

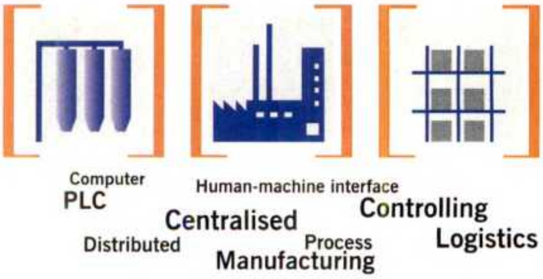
Information technology puts at the disposal of modern managers a powerful tool that can help them take automation to previously unthinkable levels.

TODAY, IT IS A COMMON OCCURRENCE for workers in modern factories to receive SMS relating to work—something like...hgh press opens emg valv (Due to high steam pressure, the emergency valve opened).

The advent of IT has touched all key areas of manufacturing. Enterprise Resource Planning (ERP) Systems are now used even more widely than earlier. Terms such as ethernet, intranet, internet, vertical integration, MES integration and the integration of the corporate management level in automation (From Shop Floor to Top Floor) have entered industrial-speak. And in an effort to integrate the decision making and production processes, companies are deploying the appropriate IT-enabled tools.

What sounds so simple in theory is often thwarted by the historically deep-rooted boundary between the IT world and the production world. Individual solutions could be the answer, but could, under certain circumstances, involve high cost and time overhead. Still, these could easily be kept within limits, as integrated and well-matched Simatic engineering tools show. Simatic IT WinBDE offers a software product, for instance, that lends optimal support to the acquisition of machine and production data. For example, defined data structures are available for the most important parameters, such as Overall Equipment Effectiveness (OEE), which can be supplied directly by way of Step 7—the simple and user-

Today's Automation Landscape



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SIEMENS' HEMANT APTE: Taking the automation route

TRENDS IN PC-BASED AUTOMATION

- Automation is increasing in typical PC tasks like filing. Due to decentralisation and distributed intelligence, more data processing (of process information) shifts to the intelligent periphery, which assumes a portion of classic PLC functions
- Aside from Windows NT@ and Windows CE@, special real time operating systems enjoy widespread distribution. In the future, Linux will also play an increasingly important role in the automation sector. Java's future role is not yet clear
- The use of a OPC can dramatically accelerate the integration of equipment from different manufacturers and with different complexities
- Remote diagnosis and monitoring of systems via the internet or viewing current production from any intranet PC provides additional reasons for the use of PC-based automation technologies
- Drafting a system for a specific task leads to module hierarchy

friendly language for programming the modern Simatic control systems.

Automation has never been so powerful. Today it can solve problems of previously unmanageable complexity. And it has never been as consistent as it is now. In the conventional solution based approach it was a collection of various products and systems not essentially compatible to each other. (See *Today's Automation Landscape*)

The result: time and cost overheads. With Totally Integrated Automation (TIA), the degree of integration has reached a level that until recently, was inconceivable. TIA stands out on the one hand through its three-fold integration in configuring/programming, data management, and communications. On the other hand, it offers a modular system comprising all the components needed today for an automation solution. All the processes in the production system are forged into one unified whole—includes closed-loop control of heating, ventilation and air conditioning of the surrounding building. High productivity in engineering and plant operation are thus typical features of TIA. (See *No More System Barriers*)

TIA has become the most successful automation concept because it helps every user to achieve more success. Design engineers across companies confirm that they make significant savings, sometimes as much as 50 per cent, in engineering costs when they use TIA. And further savings accrue with every expansion, modification, or adaptation of the plant. This represents huge potential over the entire life cycle of a project.

TIA combines the highest degree of integration with a previously unheard-of openness. Leading communications standards and the integration of PC-based automation solutions open TIA for virtually the entire range of products and services on the automation market. Beyond this, TIA is open to innovative automation structures like component based automation, the technological modularisation of machines and plants. Whatever potential you want to exploit, you can do it with TIA.

> “TIA combines the highest degree of integration with a previously unheard-of openness”

TIA stands for a revolutionary new way of combining the worlds of production and process technology. All hardware and software components are integrated in a single system. Such complete continuity is made possible through three-fold integration. (See *Three-fold Integration*)

The first is production data acquisition. The data to be acquired is much too diverse, the demands of the relevant corporate sectors on information type and availability are different too. Last but not least, the way of thinking at the production management level and at the corporate management level differ. Experiences and demands in different sectors differ greatly.

The second is WinBDE: transparency for machine and production. The transparency of all machine and plant data is the basic prerequisite for being able to determine the efficiency of a production control system. With machine data acquisition, evaluation and archiving, Simatic IT WinBDE supports the optimisation of machine, production line, or plant performance, utilisation, and quality.

No More System Barriers

Complete
Integration
of a company's
automation environment

SIMATIC-Totally Integrated Automation

GRAPHICS BY KULDEEP BHARDWAJ

And the third is performance analysis and handling. In order to generate the information for a performance analysis of individual machines and production lines, all machine states and downtimes must be recorded and classified.

WinBDE enables detailed analyses directly on the machine, for example with individual graphical evaluation modalities. Data coming in over an OPC interface gives insight into the availability of individual pieces of production equipment or entire production lines. The resulting transparency also makes it possible to respond faster to problems and thus increase machine run times. Operating states can be analysed on a machine-related or equipment-related basis.

The Future Of Automation

In recent years, automation technology has been shaped by decentralisation based on fieldbus technology. New user demands are shaping tomorrow's trends:

- Distributed automation enables modularisation of plants and machines. It allows the reuse of plant and machine parts.
- The use of established IT connects the automation level to the corporate management level (vertical integration).

GSM technology will be used tomorrow for the purpose of remote acquisition of information. The advent of the internet has made it possible to monitor manufacturing plants from remote locations by simply logging on to the web server that is embedded in the plant control systems.

Manufacturing Execution Systems (MES) offer a gateway from the automation world to the ERP world. A very wide spectrum of MES products is already available today making factory operations even more transparent and efficient while offering the flexibility to match the process settings with unique customer demands and specifications. This leads to optimum plant utilisation, optimal inventory levels, and quick delivery times.

Tomorrow's factories will make even more use of identification systems. These identification systems mean that a product of object is accompanied by a detailed data right from the beginning. Data transfer between the mobile data memory and the read/write unit is carried out fully automatically and without contact by means of radio frequency, where direct visual contact is a must. Starting from the chassis of the car to the completely built unit, the RF tag will store all required information for each product unit. This valuable source of stored information enables companies maintain a systematic log of all the items produced.

With the growing use of robotic arms it is imperative to provide an appropriate vision system that helps robots 'see'—this is a feature that will be abundantly used in the factories of future in India. Application areas can be automatic sorting and pick and place machines.

"Today, PC-based automation means more than packing a classic Simatic solution into a visualisation PC"

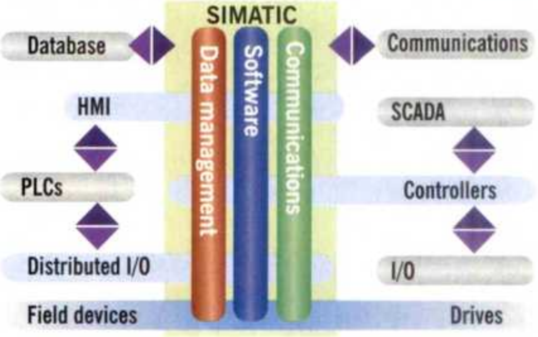
It is possible to use the latest technology without having to learn how to use new software tools. Step7, a proven standard for PLC programming, is the tool of choice for configuring and programming slot PLCs as well as the software PLCs mainly used at the plant.

Today, PC-based automation means much more than just packing a classic Simatic solution into a visualisation PC. At the core of every automation solution is a controller that regulates automatic control tasks. PC-based automation is now definitely more than putting a PLC in a PC. Simatic WinAC, the Windows Automation Center, is not a PLC, which happens to be running on a PC; it is an integration platform for technology.

The technology currently available could serve as a foundation on which to build systems that configure themselves, or reconfigure themselves, in a network of PCs, PLCs, actuators, and sensors.

Siemens has developed a wide range of coordinated hardware and software components for PC-based automation.

Three-fold Integration



Reduced down times, consistent high quality, flexible manufacturing plants with lower set up times, and cost-effective production are some of the key success factors that will be realised even more with modern control systems like Simatic, appropriately supported by powerful software systems including human machine interfaces and data communication networks connecting various departments of the factories with each other and the external world. Choosing an appropriate platform like Simatic is, therefore, an essential first step in the right direction. The journey into the world of automation will lead to profitable and cost efficient manufacturing factories of the future. bt

By **F. Nikolaus Soellner**
And **Günter Jordan**

Vice President & Global Head (Operations)
Vice President (Operations Practice), A.T. Kearn

The Once And Future Factory

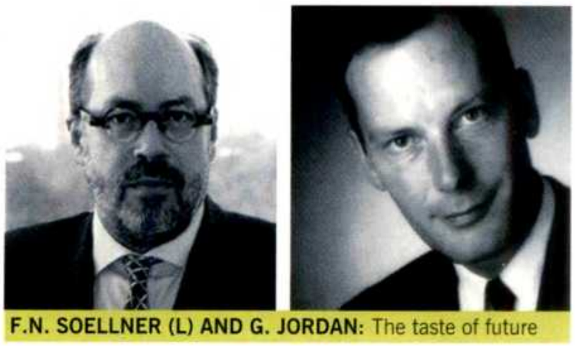
The future of the factory actually starts with its end. Get ready to welcome the intelligent virtual integrated factory of tomorrow.

YESTERDAY, APPLYING BEST PRACTICES in operations gave companies a real edge. Better quality, greater speed and lower cost helped distance them from the pack. The sobering fact is that aggressive competitors are catching up fast. Best practices are becoming a commodity and comparing performance to competitors who are deducing targets for improvement won't be enough to survive tomorrow. The benchmark for the factory of the future will be the imaginary ruthless competitor, a company doing everything right, combining the best of breed in any capability.

Attempting the impossible task of catching up with the ruthless competitor will fundamentally change the factory of today. Similar to what we have witnessed during the last 10 years when the concepts of lean production—up to the end of the eighties state-of-the-art in Japanese automotive plants only—heavily impacted factories worldwide, A.T. Kearney's research based on our Global Excellence in Operations (GEO) programme as well as our global corporate insights indicate there will be a second 'lean wave' soon. However 'lean wave II' will focus on nothing less than the structural transformation of plants involving collaboration across functions and beyond the enterprise to create 'the virtual integrated factory'.

Globalisation And Technology Enforce Change

The combination of globalisation and technology will heat up competition tremendously, generating the forces required for fundamental change. Evolving trade policies are opening up markets, leading to opportunities and threats for factories: for Western countries there is the promise of a billion consumers in India and China. On the other side, India and China, which are offering huge advantages in factor costs, are increasingly being used as 'best shore' for manufacturing or services. In most factories today, personnel is still a major cost block, with advantages of more than a factor of 10 hard to compensate. Hence strong forces are pulling operations to best shore locations outperforming traditional value chains by far.



F.N. SOELLNER (L) AND G. JORDAN: The taste of future

Digitisation will change the way we do business and ultimately shatter the traditional concept of 'factory'. New levels of transparency such as the ability to make worldwide price comparisons among suppliers, will help factories reach new levels of performance. At the same time, technology facilitates the operation of worldwide plant networks, allowing best shore opportunities to be exploited.

Breaking Up Today's Factory

With hypercompetition fueled by globalisation and technology, achieving a superior performance to the 'best in class' will no longer be good enough. Future leaders will strive to rank top in any single capability across industries and regions, leaving no room for compromise. Activities where 'best of best' performance cannot be achieved (whether due to economies of scale or factor cost disadvantages) will be outsourced, transferred or executed in collaboration with partners. As today's plants are full of activities where best of best performance is unfeasible, structural transformation is a must.

Leading companies will systematically screen their plants and identify value creators (defined as any activity with 'best of breed' performance or providing unique competitive differentiation) and value destroyers. Consistently applying this screening process will fundamentally change our operations, ultimately leading to the break-up of today's factories. Value destroyers will be eliminated both on the shop-floor and in overhead functions, leaving a plant clearly focused on core competencies. Let's look at a typical plant: payroll might be processed much more economically by a specialised payroll processing utility, desktop and network support might be possible at a much lower cost and an improved service level using a specialised company with call centres around the globe, operating four CNC and two stamping machines will most likely fail to achieve critical mass. The value destroyers in such a plant will not survive in an environment characterised by hypercompetition. Consistent application of the screening process might even require outsourcing an entire plant and switching to contract manufacturing. Alcatel has already embarked on this journey, having sold most of its factories recently.

Recombining The Virtual Factory

Lining up best-of-breed capabilities required for serving customers is a key building block of the virtual integrated factory. It will be optimised across the four walls of the physical factory and fully exploit levers such as economies of scale or best shore, leading to a superior value chain.

Let's take a look at a manufacturer of radar equipment in Italy. Sheet metal operations certainly do not distinguish the final product. In Hungary, there are excellent sheet metal companies offering cost advantages of over 20 per cent. Pre-machined castings could be sourced much cheaper in India rather than sourcing raw castings in Italy for subsequent machining in-house. Even large chunks of assembly work can be done better externally. Instead of sourcing gears and assembling them manually, why not source pre-assembled gearboxes? Over 40 per cent of in-plant resources of this manufacturer were being absorbed by value destroyers. Yet when it comes to systems integration and testing, we're talking about the company's core competencies. Close feedback loops with product development, procurement and sales enable the delivery of superior and customised products.

A virtual factory not only offers a significant cost advantage, it is also much more scalable and robust in dealing with market fluctuations. Today, many industries—for example, machinery or aerospace—are facing cyclical downturns. Looking back at the last few decades, it is evident that downswings are continually on the increase, causing drops in sales of up to 40 per cent and driving players out of business. Specifically in these industries, the virtual factory will soon become a prerequisite for survival. Otherwise, the next downturn might be the last one.

Eliminating Boundaries

Once value destroyers are eliminated and the virtual factory is recombined to ensure seamless integration internally and externally, new ways of collaboration will be required. In fact, collaboration is the second building block of the virtual integrated factory.

Walking through today's plants is often impressive. The continuous improvement efforts of highly motivated teams are clearly visible. Unfortunately, in many cases, there is a hidden factory requiring a huge resources to compensate for deficits in upstream and downstream activities. Consequently, a top-performing virtual integrated factory will never exist by itself—it can only be top-performing if it is well-integrated upstream and downstream.

> "India and China, which are offering advantages in factor costs, are being used as 'best shore' for manufacturing"

Our experience shows that typically 40-60 per cent of product costs are caused by waste due to interface losses within the value chain. At a world-leading automotive company, we found that marketing was pushing the sale of aluminum wheel rims in expensive campaigns while there was a severe shortage in production, and it was evident that demand could not be met. In today's plants, on average one delivery out of 20 from suppliers leads to complaints and non-value adding activities due to quality problems, deviations in quantity, etc.

When we examined the manufacturing costs of a metro vehicle, we found swing-open windows. Yet the operator of the metro vehicle had installed locks to prevent the windows from opening so as to avoid problems with air-conditioning and airflow. On another vehicle, we found a complex seat attachment that could be simplified to reduce assembly time by 60 per cent. To help eliminate such waste, A.T. Kearney has developed a methodology called 'lean design' that extends lean thinking to product development. Dovetailing of product design, purchasing, sales, and suppliers with manufacturing will be a source of competitive advantage.

Managing the efficient flow of goods, information, and funds within a virtual integrated factory is moving from being a theoretical possibility to an operational necessity. But it brings with it challenges that managers are only just beginning to understand. Clearly, web-based tools are nowhere near enough to achieve a significantly improved level of collaboration. A concept A.T. Kearney is prototyping with clients is the 'visible process organisation' (VPO). Inspired by NASA's mission control room, the idea of the VPO is to bring representatives from procurement, production, and sales together. Because VPO simply builds on existing organisational models, no time-consuming alignments are required to open borders between functions and get access to relevant information. It is effective in driving down costs, accelerating the forecast of delivery lead times, and increasing customer satisfaction.

End Of Customer Frustration

The virtual factory will enable a quantum improvement in customer experience. Today many operations are widely decoupled from their customers. Employees often perceive customers simply in terms of multi-digit numbers on an order sheet. The future factory cannot afford to ignore the customer and will put an end to customer frustration (or go out of business): it is no fun waiting for months to get a piece of furniture, buying a car with unwanted features or buying a phone where 20 out of 100 units lead to problems within the first four weeks.

Customers expect products to be customised to their special needs. Moreover, they demand individual service, large product variety and low prices—all within the shortest possible delivery time. 'Postponement' in manufacturing processes will be all-important, where generic components are standard and optional features are added later on. This enables the virtual integrated factory to customise its offerings without cost or time penalties.

Businesses will no longer think of selling their products to markets, but to individuals—thanks to the latest developments in customer profiling. The operational implications of 'markets of one' are staggering. It means fundamentally rethinking products and processes to deliver customer-unique value at a speed and cost approaching that of mass-produced items. No part of operations will go untouched, from product design, through customer ordering, manufacturing, delivery, after-sales support, even on to asset recovery and recycling.

Customer intimacy will be a key characteristic of the factory of the future. While at one end of the supply chain, the roles of suppliers and engineers are merging, new words like 'prosuming' are signaling the amalgamation of producer and consumer on the other side of the supply chain. There are some initial examples of this emerging. In the automötive industry, Volkswagen is building its new premium car line in a 'glass factory' in the middle of the city of Dresden, providing a new customer experience.

> "A virtual factory not only offers a cost advantage, it is also robust in dealing with market fluctuations"

Managing Risks Becomes A Core Capability

While the factory of the future will achieve new levels of performance, there are potential downsides. The very networks that enable corporations to operate smoothly across borders also make them susceptible to strikes, earthquakes, and political and economic crises. We have seen numerous examples of this, be it the economic downturn in South America or the threat of war in Iraq.

To build the virtual integrated factory, it is a must to diversify risks. Risk scenarios evaluating the impact on business including mitigation strategies have to be thought through to cope with operational vulnerability. When a fire at a Philips semiconductor plant in New Mexico disrupted the supply of chips, Nokia noticed a disruption in product flow even before Philips notified them that there was a problem. Nokia redesigned the chips, accelerated a project to boost production and got more chips from other suppliers. Ericsson moved too slowly and came up millions of chips short for a key new product.

The ability to identify, quantify and address the most critical potential risks will be a core capability for companies embarking on implementing the virtual factory. However, seeing Dell outperforming their competitors with a return on capital of multiple hundreds and inventory turns of 80 compared to competitors' 10-20 while delivering highly customised products gives us a taste of the benefits of the future. bt

By **Ravi Uppal** | Vice Chairman & Managing Director,
ABB India

Factory Of The Future

The one critical element in the manufacturing environment of the future will be a seamless online integration of systems across the value chain.

IN A FAST, COMPLEX, AND INCREASINGLY competitive business environment, manufacturing is becoming a key factor and technology an important differentiator between winners and also rans. In the manufacturing context, the major thrust of technology in the past has been on re-engineering business processes. Consequently, manufacturing as an activity has only seen incremental change. With today's competitive pressures, companies are looking for quantum leaps in order to make a radical impact on their productivity and efficiency levels. The focus is shifting to streamlining of manufacturing processes through increased automation and integration of manufacturing and business processes. In an increasingly dynamic manufacturing environment, the key drivers will be:

- Enhanced operational efficiencies
- Need for seamless integration of systems across the value chain
- Real-time information
- Cost minimisation
- Optimised production
- Superior product quality
- Product aesthetics
- Economies of scale
- Minimum human intervention

Traditional manufacturing processes have been based on "push" technology where components are moved to a succeeding work operation as soon as the preceding one has been completed. This approach does not take cognisance of work operation capacity and usually results in process bottlenecks and higher levels of work in process inventory. The pull manufacturing approach, on the other hand, relies on a closer alignment of process capabilities and the concept that material is pulled from a preceding operation only when it is needed. This creates fewer bottlenecks and lower levels of work in process inventory. In addition, the pull approach results in faster throughput times and reduced overall lead-times. Most ERP systems typically use the MRPII functionality for planning and scheduling. While this may be somewhat successful in complex engineering situations, it has proved inadequate for fast-moving discrete manufacturing. MRP is normally run only once a day due to its heavy computing resource requirements, which means that information is not available in real-time.

Now imagine a business enterprise where your systems for power, automation, and information are seamlessly integrated. Every component in the enterprise value chain has the built-in tools necessary to install, operate, optimise, and maintain across its total lifecycle. A compatible, open architecture, which reaches from plant floor to top floor. Faster system design, deployment, asset management, optimisation, and collaboration are only a mouse click away. Historically, there has been an integration gap between business and

ABB INDIA'S RAVI UPPAL: Predicting a quantum leap in manufacturing and business processes

DEEPAK G. PAWAR

manufacturing processes, primarily due to the lack of intelligence and ability to communicate in manufacturing systems and their components

ABB's Industrial IT platform aims at closing this gap and enabling real-time, seamless integration of plant operations and business processes across the entire value-chain based on an open architecture platform. ABB is "information-enabling" every one of its own products, which form an integral part of the automated manufacturing processes of many industries. Over 35,000 ABB products have been Industrial IT enabled to date.

Industrial settings today typically contain hundreds of pieces of production equipment, power and automation devices, and software applications—each with a diverse constituency of interested employees and managers. While many companies strive to identify and integrate all these assets into one collective IT network, the sheer magnitude of the task is daunting. Industrial IT puts intelligence into plant assets. The promise of a thinking industrial IT framework is

TRADITIONAL AUTOMATION

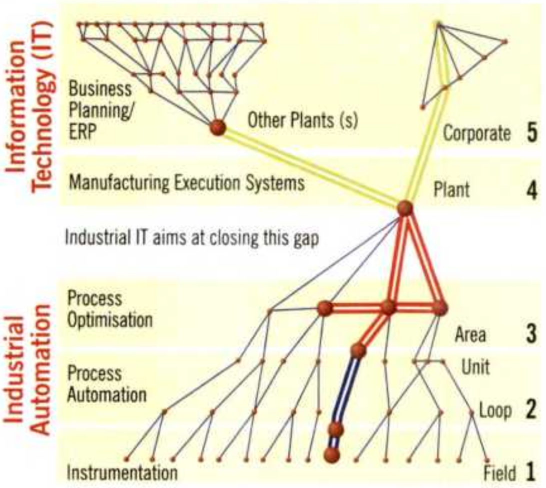
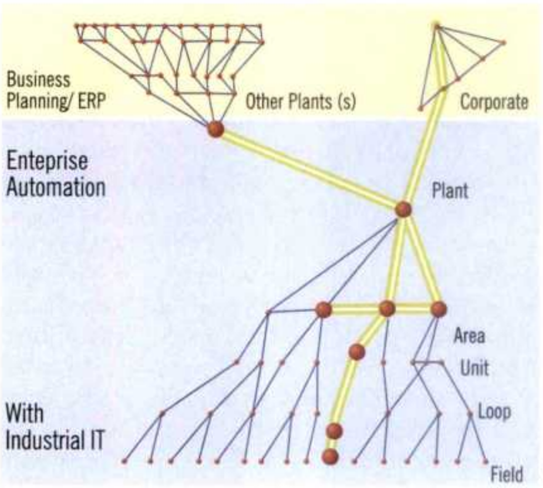

Information Technology (IT)
Business Planning/ ERP
Other Plants (s)
Corporate 5
Manufacturing Execution Systems
Plant 4
Industrial IT aims at closing this gap
Industrial Automation
Process Optimisation
Area 3
Unit
Process Automation
Loop 2
Instrumentation
Field 1

ABB VISION


Business Planning/ ERP
Other Plants (s)
Corporate
Enteprise Automation
Plant
Area
Unit
Loop
With Industrial IT
Field

GRAPHICS BY PINAKI PAUL

the next frontier from which manufacturers can benefit from easier engineering, faster information and improved asset management.

Industrial IT enables consolidation and integration of documentation, configuration, and connectivity tools, life-cycle support, and more in consistent electronic format. Using patented ABB Aspect Object technology, these electronic characteristics are built into a powerful software shell, which represents the physical object in every sense. Simply copy and paste the Aspect Object into your automation platform, then point, and click for faster installation, operation, and asset management.

The Plug-and-Produce ABB Industrial IT architecture sets the stage for real-time interaction across the enterprise value chain—from eBusiness order input, to just-in-time procurement and production, to logistics and distribution of highly-customised end products. Just as one would browse the files in a PC directory, the user navigates among multiple structures of enterprise assets—assigning each to the most productive and profitable task at hand. Above all, ABB's Industrial IT offering is based on compatible, scalable and upgradable plug-and-play building blocks, which can be adapted to different circumstances and applications.

> "The promise of a thinking industrial IT framework is the next frontier from which manufacturers can benefit"

To showcase the real benefits of Industrial IT, and the key role it can play in the future of manufacturing processes, ABB recently launched its fully Industrial IT-driven manufacturing plant, i.e., a distribution transformer factory in the Polish city of Lodz encompassing every stage of the business from online ordering and planning through the manufacturing process to final product shipment. Industrial IT provides real-time information linking of all systems and machinery throughout the enterprise. Some of the main tangible benefits targeted include:

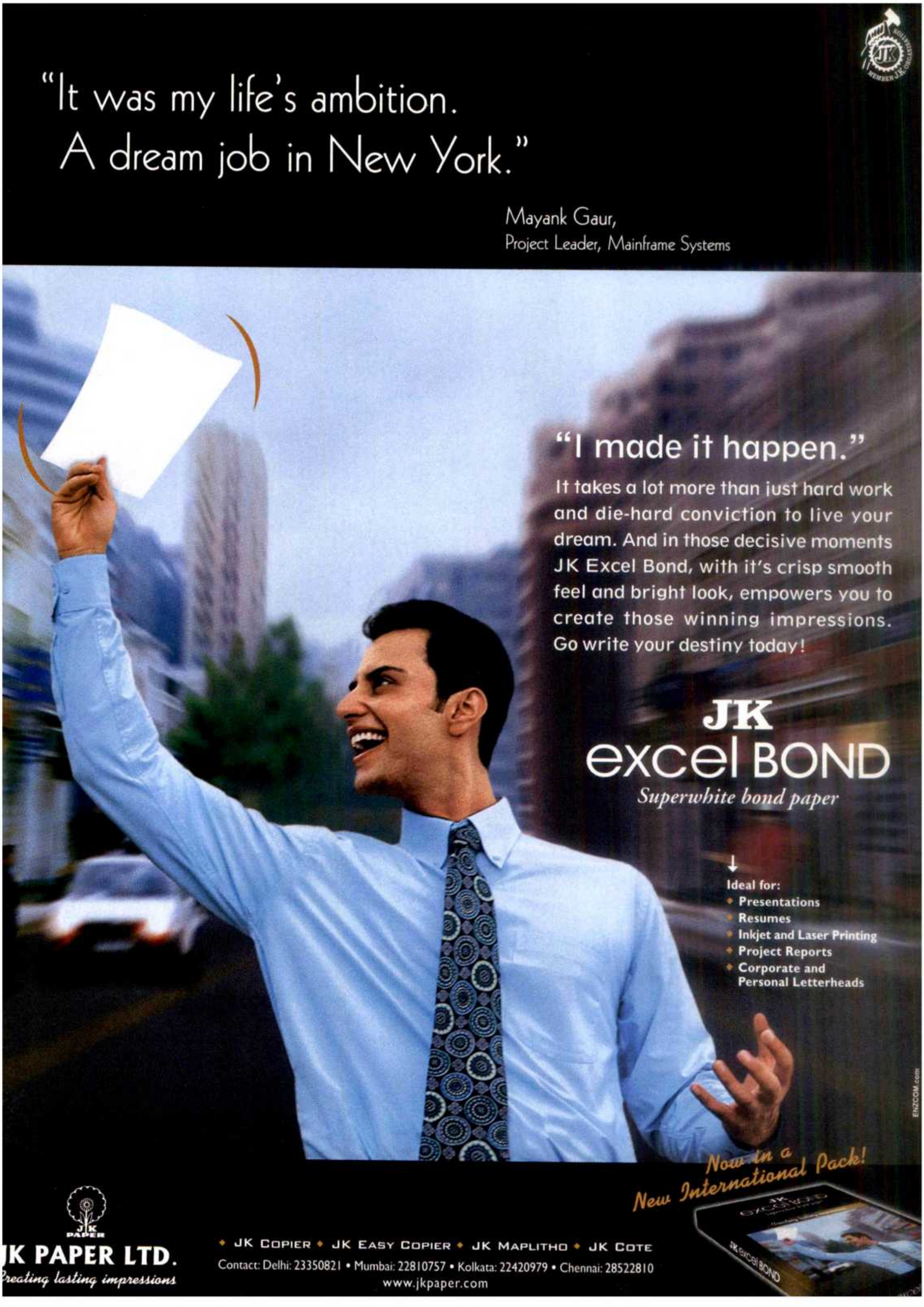
- Cycle-time reduction by 50 per cent
- Cutting down delivery time drastically
- 100 per cent increase in production
- Customers can literally initiate their own orders
- All technical, commercial, order-related, business MIS and configuration data available on mouse click—in real time
- Significant improvement in asset optimisation and plant utilisation
- Consistent quality of the highest standards
- Minimum human intervention

ENTERPRISING TOOLS OF MANAGEMENT

		Industrial IT from ABB	
	1995	2000	200x
Relationship Management	Multiple, Proprietary Software Platforms	**Collaborative eBusiness** ⇒	**Real-Time, Device to Enterprise Integration**
Enterprise Management	Traditional ERP Systems	**Integrated Business Processes** ⇒	
Automation and control	Traditional Control & Instrumentation	**Plant Automation** ⇒	
Devices	Wired Connections	**Intelligent Devices** ⇒	
	HW/ SW Islands	Gateway Integration	Full Integration!

This concept will be replicated in other ABB factories round the world in a phased manner and serve as a benchmark for customers across the industry spectrum to experience the future today.

It is, therefore, not difficult to imagine the "factory of the future" where the electronic acceptance of a customer order kicks off an amazing sequence of Aspect Object-based events—from automatically reserving the necessary raw materials, to configuring and controlling the production train, to monitoring and maintaining the health of plant assets across their lifecycle—seamless, real-time integration of processes across the enterprise. That's why ABB's Industrial IT is called "The next way of thinking...." bt



"It was my life's ambition.
A dream job in New York."

Mayank Gaur,
Project Leader, Mainframe Systems

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By **Alan Grant**
Managing Director,
Canon India

Adaptible, Virtual And Multifunctional...

These will be the characteristics of the office of the future. And oh, it will be paperless and may well be your home.

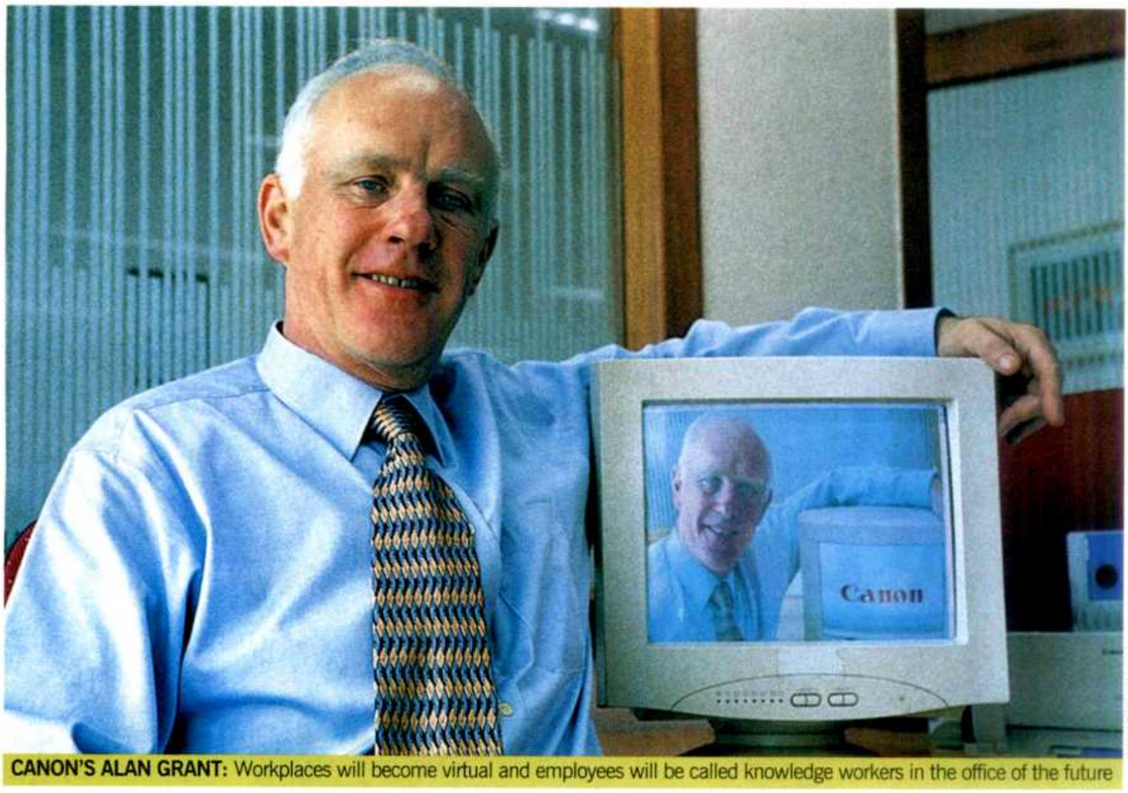
MOST BUSINESS EXECUTIVES TODAY are striving hard to keep pace with the way in which technological change is revolutionising the shape of the workplace. Already for some people the traditional segregation of the workplace from home has all but disappeared. Professional and personal lifestyles are increasingly intertwined as information becomes available at work, home, and while we travel.

Most business managers have already started looking ahead to identify work trends for the future. However, given the rapid pace of technological innovation that we have witnessed it is often hard to find the correct answer to questions like what percentage of our workforce will be working from home offices by 2020, or the technology that we will be using in the networked offices of the future.

If one were to look at changing work patterns across companies for a benchmark, the one trend which emerges is the shrinking boundary between personal and professional lives and the 'death of distance' as a work impediment. Studies indicate that the biggest work related concern for employees in the future will be their ability to balance work and family demands rather than current issues like earning a competitive salary and job security. Employees will become knowledge workers who will live and work from virtual offices. Technology will connect people and enable them to stay in touch with colleagues and customers who they don't see or meet for days, or weeks at end.

As one begins to visualise the ideal office of the future, it will be imperative that we evaluate not just the technological but also the social implications that are likely to come into play. As the global economy evolves, organisations will increasingly be more influenced by external non-organisational factors which will force them to redesign themselves around their employees and customers. We have all experienced the rapid expansion of our cities and towns and the resultant drop in productivity of our workforce as a result of longer commuting time which has transformed our average eight-hour day into the more common 12-hour marathons.

In such a situation, management teams will



VIVAN MEHRA

CANON'S ALAN GRANT: Workplaces will become virtual and employees will be called knowledge workers in the office of the future

be hard pressed to devise ways to cut down the unproductive time spent by their workforce while maintaining the all important 'chemistry' of the personal relationship engendered from face to face contact between people. Employees will be grappling for a solution that will enable them to spend more time at home with their families. The solution will be the emergence of smart virtual offices which will be powered by multifunctional converged devices that will make physical proximity unnecessary and at the same time lead to greater business productivity.

The Impact Of Technology On Future Office Environment

The biggest influencer facilitating the transition to the Smart new offices of tomorrow will be technological innovation. Over the next 15 years, I expect this to be the single most important factor impacting the way offices of the future operate. It will become the common denominator which will bring about the equilibrium between employer expectations and employee productivity. As product lifecycles shrink and newer technologies make older processes obsolete at an ever increasing pace, it has become harder to predict the products and technologies of tomorrow. But even in this turbulent and dynamic environment the one thing which is certain is that technology will change the way we live and work in the future. Looking into the future, it is easy to predict that every office will have—state of the art-telecommunications and videoconferencing networks, interconnectivity and broadband wireless facilities and multi-functional digital communication equipment which will make connectivity between offices, cities and countries seamless and instantaneous.

Office space will become a precious (and costly) commodity and secretarial assistance a luxury rather than the norm. Future offices will house state of the art products that are capable of providing multiple applications and high resolution projected images. The day is not far off when the walls, workstations and even the floors of future offices could become a personal desktop and single machines will perform multiple functions thereby empowering employees to do more with less. Along with this technology innovation, there will be an emphasis on the features and application benefits that the technology will provide to end users.

Telecommuting, Hotelling, Virtual Or Physical Offices? A Plethora Of Choices...

Work places are increasingly about choice and this freedom of expression is likely to define offices of the future too. As rush hour gets worse, the time spent commuting increases. Companies will be hard-pressed to devise new ways to bring both the home and the office as close as possible for the sake of employee convenience and productivity. Research reports indicate that by 2020, office workers will spend at least 50 per cent of their time out of the office and wireless technology will allow employees to stay connected to their home networks from remote locations.

> "Longer commuting time has transformed our average eight-hour day into the more common 12-hour marathons"

Today we are seeing a paradigm shift in the way real estate is viewed. Renting an office in the future will become as easy as renting a car or a hotel room. Property will become a fast-moving commodity, where customers will decide how long they want to stay. There will also be a mindset shift as companies will no longer want to tie up their assets in brick-and-mortar facilities and will increasingly focus on people.

Satellite offices will become the preferred choice for most employees, and companies will be encouraged to set up multiple interconnected and networked satellite locations to complement their head offices. These offices will have a specified number of workstations and employees will be able to book into these venues in advance based on their work schedules and travel requirements. This will help them maximise the number of productive hours he or she is able to spend at work. Also, as homes and offices become wired, telecommuting will become increasingly popular.

SHIVAY BHANDARI

Another concept which is fast gaining popularity in the West is that of hotelling, wherein employers will be able to book space at outsourced locations for those who move from site to site during the course of their work. Companies will benefit from using state-of-the-art office facilities on a variable basis in locations where the cost does not justify the setting up of their own office infrastructure. While none of the above choices will be ideal solutions for future offices, companies are likely to use a mix of these to enhance employee productivity and convenience. These changing work patterns will open up a host of opportunities for digital imaging and computing infrastructure companies which will need to evolve their product portfolios to reflect the evolving usage patterns and demands of their consumers.

Hybridisation And Multifunctionality Devices

It is pertinent to evaluate the kind of products that will be part of the future offices. The common question that is often posed to equipment manufacturers is—will there be independent cell phones, PDAs, fax machine, scanning machine, photocopier, and printers or will there be an amalgamation of these devices into a single 'super device'? To my mind, multifunctionality will emerge as a critical driver for product adoption and devices that are

aesthetically designed and capable of performing multiple tasks will be the new *prima donna's* in the offices of tomorrow. This trend is already being witnessed in the US, where the sale of All-In-One (AIO) devices is growing at a phenomenal rate while that of single functionality devices is flattening.

As this trend indicates, the plethora of devices that are available in the market today will, over the next 15 years become a historical anomaly as they will be merged into fewer devices, each providing greater value to its users. As offices get more connected, there will be a need to integrate multifarious communication forms into one common conduit. In such a situation, multi-functional devices will transform themselves into communication conduits integrating not only printing, scanning, copying, and fax functionalities but also email, i-fax, and virtual mailbox facilities. Future offices will also be able to provide better desktop control of functions, easy hardware upgradeability, integrated document communication, and every device will be assessed on value tools such as total cost of ownership life time value.

With the segregation of workplaces and the advent of home offices this is further expected to increase.

To address these concerns, offices would need to find the right partner to help them identify and deploy technology solutions that enable them to print, streamline, and manage information more effectively to reap the benefits of a systematic information system. In such a situation, document management solutions will play an important role as they will help organisations scan and archive their information into easily accessible and shareable online knowledge systems.

> "Technology will enable people to stay in touch with those they don't see for days or weeks at end"

The Fallacy Of A Paperless Office

Our quest to discover the offices of the future would not be complete if we did not revisit the concept of a paperless office. Electronic communication technologies were hailed as the next wave in digital communication and were expected to reduce the amount of paper consumed around the globe, speed up business and improve company profitability.

However, at that point people did not anticipate the reverse impact of the internet, which has more than trebled the number of documents printed and the amount of paper which is used in offices and homes around the world. Today, more documents are being created and printed than ever before.

A Change In Mindset Needed

As technology continues to evolve in an endless cycle, it is imperative that companies mirror this change. As manual interaction between workgroups and customers declines, communication hubs will become the information conduits for businesses and emerge as the critical link connecting organisations.

To harness the benefits of IT and facilitate the transition of their businesses into the future, organisations will need to shed their traditional mindsets and encourage mass adoption of digital concepts and technologies. This will ensure that they are able to maximise the returns for their stakeholders by increasing business productivity, enhancing job satisfaction, and maximising customer delight.

By **Traver-Gruen Kennedy**

Vice President (Strategy) and Chief Evangelist, Citrix Systems Inc.

The Virtual Workplace

Virtual workplaces are writing afresh all the rules of the game that traditional desk-bound workforces have been used to for long.

ARGUABLY, THE BIGGEST CHALLENGE facing the IT industry is relevance. That is, developing IT solutions and strategies that improve a business while ensuring they are delivered at lower costs and with greater timeliness and value. Yet, while the industry is striving to address this challenge, the very nature of a typical enterprise—large IT users—is changing. Where once silos of data existed and were guarded jealously by overly protective IT staff, successful enterprises now embrace the concepts of the collaborative environment, extended enterprise, dynamic structures, and information-sharing.

In 1990, Bill Gates used Comdex as a platform to launch his "Information at your fingertips" vision for the future of personal computing. Certainly, he was not alone at that time in propounding such a concept. Already, other people and influences were working to make a reality of a similar vision, but well beyond the scope that many would have even considered. It was a vision where immediate access to information would be available to anyone, any time, any place, and using any device—total independence and the virtual workplace.

A year before Gates' address at Comdex, Edward Iacobucci founded Citrix Systems, Inc., and introduced Citrix ICA (Independent Computing Architecture). ICA was the first of many Citrix technology milestone achievements along the path toward the virtual workplace—access to any application, on any device, across any network, anywhere, by anyone.

Even though well over a decade has passed since the initial groundwork was done for the virtual workplace, there remains a high degree of conflict in defining just what this term means. In Server-Based Computing Comes of Age, a white paper produced by Citrix, Microsoft, and Compaq, the virtual workplace is defined—in part—as: "An infrastructure that spans LANs, WANs, the internet, intranets and extranets to provide access to any application from any device over any connection, wired, wireless, or Web." While this is a succinct and accurate definition, it is only upon close inspection that many of the virtual

CITRIX SYSTEMS' TRAVER-GUERN KENNEDY: Connecting people any time, any place, and using any device

workplace's inherent characteristics emerge (See *The Inherent Characteristics*).

It is undoubtedly due to these characteristics that the true virtual workplace has taken so long in coming about. Imagine 10 years ago, the reaction of an IT manager who is told by his CEO: "I'm buying a computing device today, but I don't have any idea what sort it will be or even what operating system it will run. I'm also going on a trip to…well, I'm not sure just yet, but I'll be lugging my device with me and I need you to make sure I can run our UNIX-based accounting system, some of our OS/2 applications and a few others, which I haven't decided on just yet. Oh, by the way, I'm fairly sure my new computing device won't have any storage facilities."

We can be fairly certain that the IT manager's reaction would have been total incredulity. But that was 10 years ago and the CEO's demand for what we now know as a virtual workplace was technologically unsupportable. Today, it's a totally different matter. The technology exists and there are a number of examples demonstrating the inexorable move toward the virtual workplace as a common business model (See *The Business Model At A Glance*).

For those of us who will directly benefit from the virtual workplace, there will be an enormous number of technologies working in support. These are the technologies that together will address all those inherent characteristics in the virtual workplace definition.

THE BUSINESS MODEL AT A GLANCE

- Banks providing services to customers in their homes
- Globe-trotting executives visiting partners and customers around the world
- Workers splitting their time between office and home office
- Companies divest themselves of core applications and data in favour of ASPs

Device and Processing Independence—The Server Farm

If the virtual workplace does indeed support the concept of any device, then by definition there must be a system to deliver any one application to any number of different devices running different operating systems. It is this concept that has resulted in the server-based computing model.

In server-based computing, the interface device—PC, workstation, handheld, smartphone, etc.,—functions as little more than an input/output device. All application and information processing is left to a central, scalable, and easily managed server farm. The device merely receives an echo of the application's output and similarly, echoes to the server-based application, the user's keystrokes, mouse movements, and even voice commands.

The server-based model is by no means unique and is evidenced in the growth of the Application Service Provider (ASP) market, with many ASPs taking advantage of Citrix server-based application programs such as MetaFrame. ASPs host applications in remote data centres and deliver them across WANs to multiple customers on a subscription basis. Citrix software is helping accelerate the growth of this market, extending the reach of "rental" applications to any client over any network connection.

> "Internet's global pervasiveness makes it the logical conduit for delivering information to all"

THE INHERENT CHARACTERISTICS

- **All digital**—relies on digital technology in all its forms
- **Personalised**—each person having a tailored workplace
- **Integrated**—brings together and enterprises IT/business resources
- **Available:** Always on and always connected—whenever and wherever needed
- **Any device**—whether it be a notebook, PC, PDA, smart-phone, television, copier, smart office or kiosk
- **Any network**—deliverable over the Web, wired, or wireless network
- **Anywhere**—independent of geography or mode of human mobility
- **Any person**—an UI (user interface) in their language of choice and accessible regardless of handicap

It is this same basic model that is being adopted by those companies that have every intention of succeeding in the information age—a fact evidenced in Citrix's worldwide customer base of over 100,000. Included in this figure are 99 of the *Fortune 100*, 91 per cent of the *Fortune 500* and over 70 per cent of the *Financial Times FT 500*.

While not essentially crucial to the virtual workplace, additional benefits of the server-based computing model provide significant savings for companies in the areas of cost and human resources. Typically, these benefits include centralised management of application and information processing devices as well as rapid deployment of new applications and upgrades.

Connection Independence

"The new world data centre puts customers first in the priority line. It centrally manages both internal and external resources, using the Internet as a catalyst for

common communication across IT boundaries," says David Floyer, Vice President, IT Centrix, Inc.

As Floyer says, the internet is generally regarded as the catalyst for common communication. Its global pervasiveness makes it the logical conduit for extending the deployment of applications and delivering information to employees, partners, suppliers and customers. Essentially, a critical communication component in models such as business-to-business (B2B) and business-to-consumer (B2C).

However, the vast majority of applications—those tools still required by workers to access, process, and manipulate data in the virtual workplace—are not designed for use over the World Wide Web. To enable the virtual workforce to web-access a corporate server farm and run server-based applications, companies must have either:

- Invested large sums of money in testing, purchasing and implementing web-enabled software;
- Undertaken costly projects to rewrite programmes in order for them operate across the web; or
- Implemented a web portal product that integrates and publishes existing applications for access via the web, without rewriting code.

"As long as a connection exists between the client and the server, the virtual workplace remains intact"

It is the third point that is becoming the most popular alternative and in this technological area, Citrix NFuse has emerged a clear winner. Bundled with Citrix MetaFrame XP or available as a free download from Citrix for use with earlier versions of Citrix MetaFrame, this integration technology allows IT professionals to deliver web-based access to applications and information from any client device equipped with a standard web browser.

But the web is only one—albeit extremely popular—communication conduit. Bear in mind the virtual network demands independence at every level and must therefore be able to function over any network connection—web, wired, or wireless. By virtue of products such as Citrix MetaFrame, the network independence issue has been addressed.

Network protocols, bandwidth limitations…all those hindrances to network independence are minor pinpricks. MetaFrame disregards protocols. It has no need for them apart from relying on their support by the server and device operating systems. As long as a client-server connection exists, the virtual workplace remains intact.

Even in situations where bandwidth is severely restricted, high application performance is still achieved. Because the applications execute 100 per cent on the server, only keystrokes, mouse clicks and screen updates are transmitted over the network, performing just as well over a 33.6 Kb modem connection than over a 1Mb link.

Survival

At the beginning of this article, it was stated that the biggest challenge facing the IT industry is relevance. The virtual workplace is the overpowering concept establishing that relevance, facilitating a change towards true convergence of business and information technology. Companies that hope to survive in a world that is at last embracing the information age must look beyond the traditional desk-bound workforce. The ridiculous request of the CEO 10 years ago is the critical demand of every worker today. bt

By **Rajarshi Sengupta** | Executive Director,
PricewaterhouseCoopers

The Future Of Office

Tomorrow's office will work towards providing the right information at the right time and to the right people.

Where one works is becoming increasingly irrelevant in an era of increasing global competition, where jobs flow between continents and organisations extend their network to include valued business partners. Thus the target of investment shifts to the building of networks, and the design of collaborative office systems, rather than buildings or offices themselves. As companies evolve into networked organisations that extend the ambit of their operations across continents and entities (suppliers, distributors and at times, competitors), the physical boundary of the office also gets extended .

As collaborative systems that shape the way in which we work will be most impacted by the advent of further technology in the workplace, this article focuses on what IT Applications we expect to see in The Office of the Future. While some of these applications have been around for some time, the contention is that such applications will become integrated with basic work processes , just as most people have integrated e-mail into their daily worklife. On any given day, a key task that we do is to check our e-mail, as that is the channel through which information comes in. My intent in this article is to explore some of the applications that I believe will become as integrated, widespread and essential as e-mail.

In identifying such applications, I have tried to draw on my experience of working in the Information Technology sector to relate some of the problems I have seen companies and individuals wrestle with. While the stories are drawn from my experience, they naturally do not relate to any one particular company or individual.

All In A Day's Work

When Paramjit Sharma, General Manager (Customers), at a large telecom services provider, walked in to the sudden review meeting had been called by his boss, the Senior Vice President in charge of Customer Acquisition, he knew that he was not well prepared with answers to some of the questions that would be directed his way. What he needed was not readily available from the MIS reports that the IT group had generated.

The first question that Paramjit faced was about how the company's customer base had grown for the past three years. It took Paramjit a couple of minutes to respond, since he had not anticipated a question on the historical data in the company, and having joined the organisation a year back, he was not that familiar with historical data.

He went with his own estimate of 7 per cent per year. The next question focused on how the

SHAMIK BANERJEE

PwC'S RAJARSHI SENGUPTA: Extending old boundaries

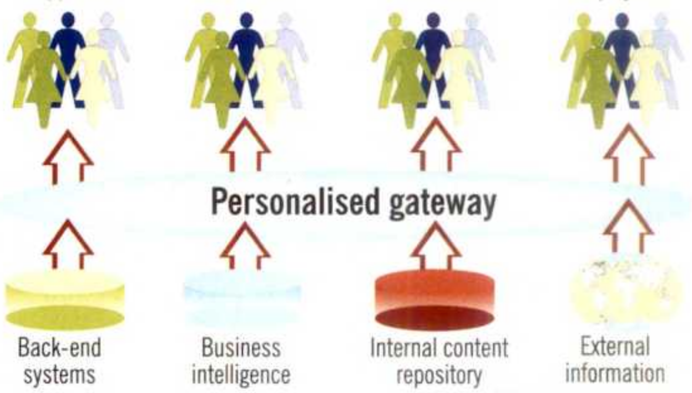
base had grown for the last year. This time Paramjit was more confident of the data, and responded with 10 per cent. That set off a round of discussions and further questions culminating with one on the churn rate (Paramjit's answer after much scrambling was 9 per cent). Given that the churn rate had been increasing for the past three years, Paramjit was next grilled on if he could identify the customer segment that was leaving and qualify it.

As the meeting ended, Paramjit's boss indicated that he needed to have such data at his fingertips to help the Senior VP plan out the company's service offerings to target its customers and chosen markets better.

In an office located in the same building, but in a different company, Rekha Krishanmurthy, the young HR manager of a multinational consulting company, was facing an irate young consultant. In a situation that was becoming increasingly common as the consulting organisation had its staff work at the client site, staff working at the client site no longer had access to the regular announcements on HR policy that Rekha's department brought out from time to time. More importantly, such staff had no access to the various announcements on trainings/seminars that the organisation conducted, and felt increasingly isolated from mainstream of the company. It was also getting difficult to get needed information from consultants working onsite, specially in some of the more remote areas, such as data for timesheets, which formed the keystone of the consultancy's billing. As Rekha pondered over the problem, it struck her that there were more angles to this than just a bulletin board for disseminating HR information. The project manager for one of these remote projects was particularly upset that the latest information on the company's Quality Management System, with an updated Project Procedures Manual, had not reached him.

At another company, as he came out of a meeting on a new product launch, Rajendra Kumar, the new VP of Products was keen the know the impact of a recent merger between his company and another, both major players in the healthcare beauty products market, on the organisation's archival knowledge concerning launches. More than once during the meeting, he had felt that it would have been nice to know if product launches similar to the one being discussed had been attempted before and the results of the same He knew that this information was there amongst the people who had worked in the company for quite some time—but

INTEGRATING CONTENT SOURCES



Souce:PwC Technology Forecast: 2000

GRAPHICS BY PINAKI PAUL

was afraid that with the merger, some of these people would leave, and he would miss out on the collective experience of people .

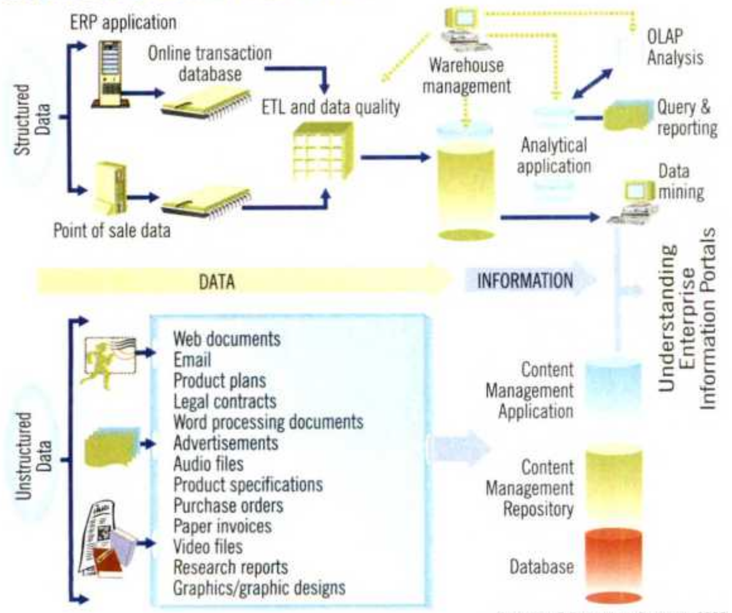
Stepping Back For A Minute

If we step back for a minute and take a look at the issues faced by Paramjit, Rekha or Rajendra, it may be possible to discern one common thread running through their problems—they did not have the right information (Paramjit and Rajendra) at the right time (Paramjit and Rajendra) at the right place (Rekha).

> "The issue is that of the ability to acquire information and disseminate it in a personalised manner"

Consider an application that would be sitting on Paramjit's desktop every morning, so that when he went and logged into this application, it would give him a status update on the critical business metrics that he wanted to monitor. A variation of this application could contain the functional details that Rajendra's team want, with references maybe to a database or a knowledgebase, which stored the lessons learned on past product launches. For Rekha's irate project manager and consultant, this knowledgebase could contain details of how other projects had adopted to the new quality management system with a list of FAQs from the different projects. And if this system could be extended to the people working outside the office, then by accessing this corporate repository of information, the consultant at the remote client site, would probably feel more included in the organisation, by connecting virtually to the organisation.

KNOWLEDGE SHARING NOTION


ERP application
Online transaction database
Structured Data
ETL and data quality
Point of sale data
Warehouse management
OLAP Analysis
Query & reporting
Analytical application
Data mining
DATA
INFORMATION
Understanding Enterprise Information Portals
Unstructured Data
Web documents
Email
Product plans
Legal contracts
Word processing documents
Advertisements
Audio files
Product specifications
Purchase orders
Paper invoices
Video files
Research reports
Graphics/graphic designs
Content Management Application
Content Management Repository
Database

Souce:PwC Technology Forecast: 2000

The Enterprise Information Portal: Delivering Knowledge And Information

Welcome to the world of the Enterprise Information Portal—the gateway to a company's information sources, and perhaps the most widely used channel for corporate Knowledge Management. In our view, this will evolve as the Application in the Office of the Future, as it will form the Information Infrastructure around which The Office of the Future shall operate.

What exactly is an Enterprise Information Portal (EIP) and what are the applications that will be integrated in such a gateway? To quote the PricewaterhouseCoopers Technology Forecast 2002-2004, *Enterprise Portals can be considered the most comprehensive of all available knowledge management tools. These portals now serve as the presentation layer for business intelligence, customer relationship management, e-business, human resources, and other enterprise application solutions in addition to their earlier role as a gateway to enterprise information.*

While the EIP started out as a B2E (Business to Employee) portal, which allowed employees the option of self-service applications such expense

reporting, training course selection and other internal activities, the role has now been extended to include access to various corporate applications. Identity based management has allowed an organisation to also determine who gets access to what applications and data, thus allowing personalisation as well as adding in the needed security layer. In recent years, vendors have extended the reach of the EIPs to include what is referred to as "other networked business constituents". Thus the data-centric EIP spectrum is moving to what IDC refers to as the process-centric EAP (Enterprise Application Portal) that allow access to disparate application systems and actually integrate the same.

But what of the applications that Paramjit and Rajendra needed for delivery of information at the right place and the right time, and for the formalisation of the tacit knowledge inherent in the organisation ? The EIP needs to form a single point access interface to such Business Intelligence and Knowledge Management systems that would store the needed information for easy and fast retrieval.

As the schematic above shows, the Enterprise Information Portal would draw data from both structured and unstructured sources. For Paramjit, the needed data may come from the structured transactional systems that the telecom provider uses, whereas for Rajendra the data would come from the various unstructured documents that contain the experience in the enterprise.

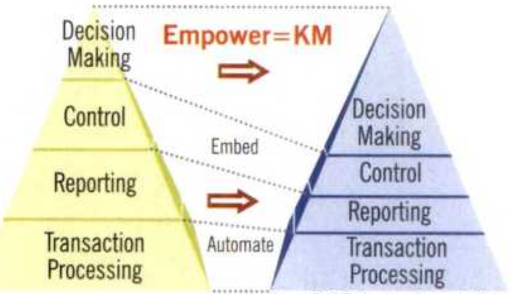
"Enterprise information portals will form the infrastructure around which the office of the future shall operate"

The further task for Rajendra's company then would be to chart out a formalised mechanism for capturing such knowledge using tools such as text search and retrieval; personalisation, standing queries and collaborative filtering; taxonomies and linguistic analysis for knowledge mapping; document management capabilities and workflow. Perhaps the approach that would evolve is what analysts are referring to as Enterprise Content Management (ECM) tools. As pointed out in the PwC Technology Forecast 2002-2004, ECM support the notion of knowledge sharing : that enterprise content should not belong to a single application or system but be available as a shared resource for a range of users, applications and systems.

Insight Objects Beyond Boundaries

The Office of the Future would need to leverage these technologies and applications to empower its analysts and employees to take more informed business decisions. The work of the future will need organisations to have an excellent grip on the core business and analysis information for its operations and processes, so that it can react to changing business needs effectively and rapidly. By building a Knowledge Core, a company becomes far more aware of its strengths and weaknesses, and therefore more prepared to deal with external threats.

OFFICE OF THE FUTURE



Souce:PwC Technology Forecast: 2000

Using the diagram above, we envisage The Office of the Future to have far more empowered users who will leverage the technologies and applications referred to in this document as the organisation decides to develop and deliver what Gartner refers to as targeted, interactive "insight objects" to users based on adaptive profiles.

And maybe then Paramjit, Rekha and Rajendra will have one less worry on their minds when they go back home.

LIFE on the move

By **Gautam Advani**

Head (Marketing),
Nokia Mobile Phones India

Those Magnificent Handsets

Compelling features and high value-add services will put a whole new experience on the fingertips of users. One company's roadmap for a mobile future.

OVER THE LAST 12 MONTHS, OUR KEY focus and overall strategic intent in Asia Pacific has been to grow the mobile market—both in volume and value. Nokia is committed to deliver new products with technology, applications and services that enhance consumers' lives.

Technologies, such as MMS (Multimedia Messaging Service), Java, and colour displays enable significant new benefits to the consumers in the form of exciting, high value-add services.

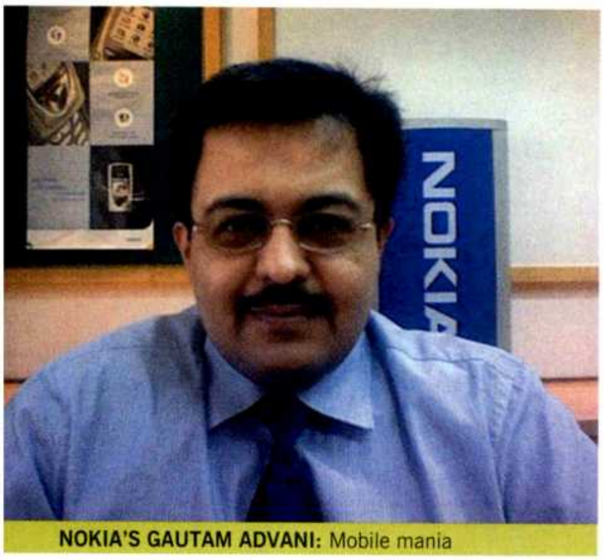
The innovative range of products that Nokia has added to its portfolio in 2002 will play a vital role in facilitating the uptake of new mobile multimedia services and applications.

As much of the needed growth for the industry depends on the success of non-voice services and applications to drive up its average revenue per user, Nokia is working very closely with operators, application developers, and content providers to grow the non-voice market. We believe that interoperability between handsets and networks is key to providing a seamless user experience that will, in turn, accelerate the growth of the non-voice market.

What is also key to Nokia is to tap new subscriber growth. We see the opportunity to drive growth in voice services with affordable handsets in emerging markets, where there is still a lot of market potential for new cellular subscribers.

To cater to the needs of first-time users in these markets, we are developing products that offer simplicity, value for money, attractive design, outstanding quality, and reliability. We recently launched a new phone, Nokia 2100, an affordable, fun and easy-to-use product targeted to appeal to first-time users in markets like China and India, where voice and basic messaging services are very much in demand.

Another strategically important step for us is to grow the mobile gaming market together with operators and established games publishers. We are



NOKIA'S GAUTAM ADVANI: Mobile mania

well-positioned and committed to bring the value of mobility to the games industry and are excited about extending our expertise into the gaming space with gaming devices that offer consumers a truly interactive mobile gaming experience. Nokia's first gaming device, the Nokia N-Gage with compelling branded game titles has just been launched.

The handset market is entering a new growth period spurred by the arrival of an increasing number of mass volume products with colour and multimedia messaging capability, all enriching customer experience.

Colour and multimedia are indeed adding excitement to mobile communications. In 2003, we expect to ship between 50-100 million colour handsets worldwide, with MMS, Java, and browser support. Of these, about 10 million will be based on Nokia's Series 60 user interface. Compelling new services and phone features are increasingly moving both business people and consumers to upgrade their phones, even look towards owning more than one device.

As the industry's dynamics change, we believe that we are best positioned to capitalise on the opportunities ahead. We see potential for growth in new product categories, especially in imaging, games and in the enterprise market. In the light of the growing replacement market worldwide, and particularly in mature markets in Asia, Nokia is well positioned to cater to this market as we continue to bring the benefits of new technology to our wide range of products for different consumer segments.

Importantly, we also see potential demand and opportunity to drive growth in voice services with affordable handsets in emerging marketsor markets with low penetration to cater to the needs of first time users.

Nokia 3530

Enriching consumers' multimedia and mobile gaming experience, the high quality colour display of the Nokia 3530 supports 4096 colours. The phone also boasts WAP browsing, calendar entry, and phonebook features. Users can enjoy pre-installed Java applications as well as download a wide range of Java applications. Other key features in the Nokia 3530 include polyphonic ringing tones, wallpapers, colour graphics, pictures, game packs and operator logos. Nokia 3530 is the company's first colour display phone targeted at the mass market.

Nokia 3650

The imaging functionalities of the Nokia 3650 include an integrated camera, a large 176x208 pixel colour display with 4096 colours, a 4MB internal user memory—it can be expanded with a memory card to enable more storage for images, video clips, games, or other files—a camcorder, and a RealOne Player. The MMS functionality allows users to send and receive images. The Nokia 3650 has extensive e-mail support and enables access to richer WAP content through its XHTML browser.

Nokia 5100

The Nokia 5100 offers consumers enhanced durability with improved protection against water, dust, and shocks with the use of a combination of soft and hard materials. Its rubbery surface and ergonomic shape gives it a firm and reliable grip whilst its well-proportioned keys and

versatile four-way scroll enable fast and easy navigation.

One of the new exciting features in the Nokia 5100 is a flashlight feature enabling the phone to provide light in the dark. A fun feature is the calorie counter that provides the user an estimate of burned calories recorded during different activities. Other interesting features include an integrated hands free speaker, a stereo FM radio, a sound meter indicating the estimated noise level of the surroundings and an automatic volume control which adjusts the speaker volume according to the noise level of the surroundings. The phone is also equipped with a thermometer, countdown timer, and stopwatch.

HS-1C Camera Headset Kit

The Nokia Camera Headset HS-1C is a combination easy-to-wear digital camera and headset enhancement for compatible Nokia phones that comes with the PopPortTM interface connector.

The Nokia Camera Headset enables users to take digital images and send them as MMS through a MMS-enabled phone.

Music Stand BT-1

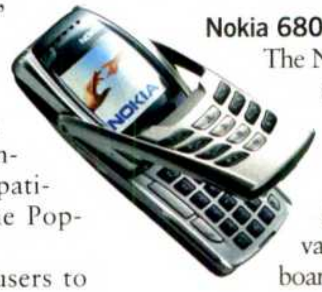
The Nokia Music Stand offers a stylish and trendy design, and plays back radio sounds of the Nokia 7250 and Nokia 6800 phones. Apart from speakers that come with a built-in stereo amplifier, the Music Stand also features a microphone for conference calls and a charger.

BT Wireless Headset Kit- HDW-2

Providing users with a cordless audio connection, the Nokia Wireless Headset is compatible with Nokia phones that support Bluetooth. With its ability to provide seamless connectivity with the handset within a radius of 10m, this is an ideal accessory for those discerning customers.

Nokia 7250

The Nokia 7250 brings the exciting world of imaging to the fashion oriented with an integrated camera, colour display and MMS. The phone features a uniquely designed keypad layout, Java support, a stereo FM radio and a range of flamboyantly designed Xpress-on covers.



Nokia 6800

The Nokia 6800 is an innovatively designed messaging device optimised for text input. Messaging reaches new levels of ease with the Nokia 6800 where users can take advantage of the easy-to-use full keyboard for personal information management, messaging, and managing email while on the move. The Nokia 6800 also comes with a high-quality colour display, SyncML support, a stereo FM radio, Java, and MMS.

Nokia N-Gage

Bringing mobility to the gaming industry and offering consumers a rich interactive experience in mobile gaming, the Nokia N-Gage is the first game-optimised product introduced by Nokia in its new game-deck category. It will come with branded game titles from top game publishers and developers.

> "Much of the growth depends on the success of non-voice services and applications to drive up its revenue"

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BTIMB303

By Ajit Balakrishnan CEO, Rediff

Pooja, Rajubhai And Friends

Entrepreneurs-on-the-move are at the vanguard of the technology adoption curve. But tech companies have to work hard at making Pooja & Co happy.

POOJA CAREFULLY OPENED HER PLASTIC carry-bag and laid out her tools—pincers for trimming eyelashes, nail polishes, nail file, cuticle trimmers and two different sizes of nail cutters. She sat down in front of her client, reached out and took the lady's hand into her own.

"Your nails are overdue for trimming by a week," she told the lady.

"I tried calling you last week Pooja but nobody answered your phone."

"I am sorry about that," said Pooja, "but the number I gave you is my neighbour's and they are very often not at home."

"But don't worry," continued Pooja, "I now have a cell phone and you can call me on it; I'll give you the number."

"You have a cell phone! Isn't that expensive? How did you afford it?"

"Not really, I bought a cell phone for Rs 4,000 and a pre-paid card for Rs 250, which should last me for a month."

As Pooja finished, her cell phone rang.

"Excuse me madam," she said to the lady she was with and picked up her cell phone

"Hello, Mrs Choudhary. Yes, I can come over to your place an hour from now for a manicure; thank you for calling me."

"See," she told the lady, "how useful this cell phone is. A client just called me and I could fix an appointment right away."

"How many appointments do you do a day?"

"Before I had this cell phone I'd fix appointment a week in advance and do two or three a day, but now I think I can do four or five a day and I can accommodate clients when they want to shift appointments around. I only wish I could keep my appointments on the phone and check them on the phone too instead of carrying a diary around with me."

"You are certainly very enterprising," said the lady. "Where did you learn to be a beautician?"

"After my mother, my sister and I came to Mumbai from Nepal, I attended school for a

REDIFF'S AJIT BALAKRISHNAN: A host of powerful new technologies will impact the way we live and work

while, then dropped out and joined a beauty parlour as an assistant to one of the girls there. After a year or so, I started doing a beautician's job in that parlour, one of half-a-dozen women there. Then I got my first private client, someone who preferred her manicure and pedicure be done at home rather than at the salon and she was prepared to pay me Rs 200 for a visit. I realised that if I could find 10 such clients I would earn more than I did at the parlour. I slowly cultivated more such clients and then left the beauty parlour. I now do 50-60 home visits a month."

At Rs 200 a visit you make Rs 10,000-15,000 a month!" said the lady.

"Yes, I do," said Pooja

TECH SHOWS THE WAY...

- Data transfer speeds on cell phones will increase exponentially
- Screens will get larger, and displays, even full-colour ones, will get cheaper
- Phones will increasingly become more and more programmable

As Pooja continued chatting with her client, in another part of Mumbai, Rajubhai was looking at his cell phone; it had just emitted a pinging sound signaling that there was an SMS for him.

"Comp dwn pl cl—rjsh," the message said

"Computer down, please call," Rajubhai read out loud, translating the SMS-ese.

Rajesh was the infotech manager at one of Rajubhai's clients' offices.

"What's the problem this early in the morning?" asked Rajubhai.

"One of our network

hubs has stopped working and one whole department cannot access their computers," said Rajesh. "That's why I sent you this urgent message from my personal computer to your mobile."

"I'll be there right away," said Rajubhai, hopping into a cab for the 20-minute ride to Nariman Point to his client's office. Rajesh's company was his biggest client; Rajubhai had a maintenance contract on their 100-odd computers and although he employed five technicians he liked to be there personally whenever an emergency arose at a major client's office.

"Cell phones are starting to take on some of the functions of PCs connected to the net"

Rajubhai was barely past Churchgate station with its teeming morning hour crowds when his cell phone flashed another text message.

"Can I offer to replace a modem free of charge at Bamco?"

It was Vicky, one of his technicians. He too was fighting a crisis at a client's office.

"Go ahd," Rajesh sent a text message on his cell phone back to Vicky. Vicky would get the message on his cell phone or on his personal computer, whichever was on at that time.

The New-Tech Adopters

Pooja and Rajubhai are the new entrepreneurs driving India's economy against all odds. By dint of their individual enterprise and risk-taking attitude and by working around the clock and being available at all times of the day or night for their clients they are creating a good life for themselves and their families and creating employment for others.

They also represent a part of the economy that is entrepreneurial and open-minded and constantly looking for ways to serve clients better, faster, and cheaper.

...BUT INDIA HAS TO ADDRESS SOME UNIQUE CONCERNS

- Phones will have to become cheaper for them to be more accessible to the masses
- Phones need to be able to work on local language platforms

They are the ones leading adoption in whole new categories of technology products.

The simple cell phone, first conceived in the 1940s as a phone for police cars is now evolving into a business tool, particularly for entrepreneurs such as Pooja and Rajubhai, who are on the move all the time.

And as cell phones grow more powerful and get connected to their base stations at higher and higher speeds they are starting to take on some of the functions of personal computers connected to the internet. For instance, the sending and receiving of short text messages (something people used email to do).

This means that a person on the move is at all times connected. He gets an alert on his mobile when an email arrives on his personal computer with the cell phone displaying the subject of the email—enough for him to judge the criticality of the message, whether it needs a reply right away or whether it can wait till he gets to a personal computer.

What people do most on a personal computer connected to the internet is send and receive email, 'chat' with friends, and get news updates. These are three functions that you can do pretty efficiently on a cell phone even at this early stage of evolution of the cellular industry.

The world that beckons Pooja and Rajubhai is not one where the personal computer and the cell phone are isolated from each other: it is one where they will use the personal computer and the cell phone seamlessly; email can be received on the personal computer if the user is logged on at that time or forwarded to the cell phone if not.

The difference is that the screen of the cell phone is much smaller than the personal computer screen, the local storage capacity of a cell phone is infinitely smaller than that of a personal computer, and the PC is, at least at this point in time, connected to the internet at a much higher speed.

On the other hand a cell phone is small and easy to carry around; it is far cheaper (you can buy a cell phone for as little as Rs 4,000, whereas the cheapest functional personal computer is at least Rs 25,000). Most of all, it's easy to learn to use a cell phone whereas there is considerable learning involved in using a personal computer for even simple things like email and chat.

What do the cell phone and personal computer industries need to do to help entrepreneurs like Pooja and Rajubhai improve their businesses?

There are things that will happen as natural developments worldwide and there are things that we need to do in India.

As part of the first, the speed at which cell phone are connected to their base stations and the internet will increase from the current 9.6 kbps almost immediately to 40-50 kbps (that's the speed at which most computers are now connected to the internet through dial-up accounts) and we can expect that speed to rise even further in the next year or so.

Secondly, cell phones have started sporting features that only personal computers had until recently—programming languages like Java.

Third, cell phone screens will get larger in size limited only by what a person can comfortably hold in his palm.

SHOME BASU

> "The cell phone is evolving into a business tool for entrepreneurs who are on the move all the time"

The quality of colour of the screens in the more expensive cell phones already match that of personal computers and laptops and these should soon become available on even the more modestly priced phones.

What are the things that we need to do in India? The first and most urgent need is for the cell phone industry to learn some lessons from the negative experience of the Indian PC industry. The PC industry in India, after displaying some initial promise has not really grown. Last year, just 1.5 million PCs sold in India, compared to 12 million in China. Many observers believe that the price of a PC needs to be brought down to Rs 10,000 from the present Rs 25,000 as a first step towards mass-scale adoption. The second step is that of making essential software (operating systems, word processing and spreadsheets) available within this price in Indian languages.

Similar factors may apply to the cellular phone industry as well. The Poojas and Rajubhais of India are waiting eagerly for us to make this happen for them. bt

LIFE on the move

By **Alex 'Sandy' Pentland**

Director, Media Lab Asia and
Professor, MIT Media Lab

Wearable Intelligence

Forget PDAs and portables, the future could be in intelligent hard- and soft-wear. Imagine really speaking through your hat, or jeans.

MIT'S ALEX PENTLAND: Wearable computing is the next step

Tomorrow's delivery man with smart helmet and wristband

MANY COMPUTER SYSTEMS claim that they are 'intelligent'...but who cares? What about making people smarter? The easiest way to improve human intelligence is by augmenting the items we wear all the time—glasses, wristwatches, clothes and shoes—with miniature computers, video displays, cameras and microphones. These high-tech 'wearables', which are being developed by my research group at the Massachusetts Institute of Technology's Media Lab, can extend one's senses, improve memory, aid the wearer's social life and even help them stay calm and collected (http://www.media. mit.edu/wearables).

The idea of increasing intelligence with wearable devices is old. Robert Hooke wrote in 1665 (in the preface to *Micrographia*): "The next care to be taken, in respect of the Senses, is a supplying of their infirmities with Instruments, and as it were, the adding of artificial Organs to the natural...And as Glasses have highly promoted our seeing...there may be found many mechanical inventions to improve our other senses of hearing, smelling, tasting, and touching."

One must draw a distinction between wearable devices and those that are merely portable, the classic example being the pocket watch and wristwatch. The difference is simple: you have to pull out the pocket watch and open it to see the time, while the wristwatch enables you to see the time instantly, while working with both hands. Although this may seem like a minor difference, it greatly affects how you use the device and how completely it's integrated into your life. Watches, eyeglasses, and radios have all evolved from hand-held portables to wearable items, and many of today's portables are destined to become tomorrow's wearables.

Today's electronic devices are beginning to make the transition from portable to wearable. There are now wristwatches that contain medical monitors and pagers, glasses with embedded computer displays that only the user can see, vests, belts, and watches with computers inside them, and both cell phones and pagers now come with internet connections and tiny teleconferencing cameras.

"As we adapt to wearable devices, and shape our habits around them, over time the culture will shift to incorporate them"

Equipped with wearable devices, people can conveniently check messages or finish a presentation while sitting on the subway or waiting in line at a bank. More importantly, they can ignore these machines while attending to other affairs.

Operating portable devices, by contrast, often requires your full attention and both hands. You have to stop everything you are doing and concentrate on the device. To appreciate how inconvenient this situation is, imagine having human aides (instead of electronic aids) who grabbed your hands and shouted in your face every time they had something to say.

Wearable devices can be much less disruptive, and people relate to them differently than other tools. Something that's with you all the time can change the sense of who you are and what you can do. As we adapt to wearable devices, and shape our personal habits around them, over time the culture as a whole will shift to incorporate them.

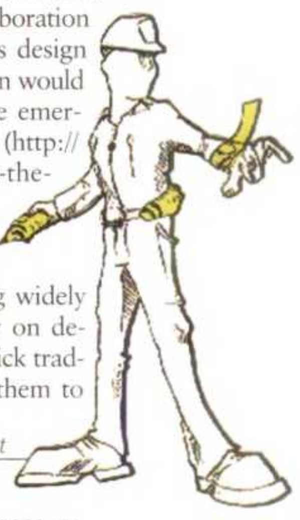
Hardware That's Fun to Wear

Psychological studies show the validity of the phrase "the clothes make the man". Our self-perception and self-confidence can indeed change with our clothes. The same is true for any constantly available device, and not always for the better. Those of us who are continually "on call" via a pager know how fundamentally these tools can alter one's life. The personal effects of a wearable recall McLuhan's dictum, "the medium is the message"—that is, the way in which a new technology changes our lifestyle is more important than the information it conveys. But wearables are more personal than traditional tools because they are a constant part of one's physical presence: They are not only part of what you wear but part of who you are.

In the near future, the trend-setting professional may wear several small devices, perhaps literally built into their clothes. A person "dressed for success" in this manner may appear to have a fantastic memory, to be amazingly knowledgeable and have powers of deduction second only to Sherlock Holmes. These wearable intelligence devices can enhance one's "memory" by providing instant access to books, digitised maps, calendars, and various databases; provide wireless connection to the Internet and e-mail; and boost one's awareness with various sensors.

It is too early to tell which approach to wearable design will prove popular. The devices can be built in many ways, and it will take a fashion and style battle to determine what people really want to buy. The Media Lab is not taking a passive attitude toward this issue. Several years ago, I initiated a collaboration with some of the world's most famous design schools to see what future wearable fashion would look like. Some tantalising visions have emerged, and can be seen on our web pages (http://www.media.mit.edu/Wearables/out-in-the-world).

As with most new technologies, wearables will probably make their biggest inroads in specialised tasks before being widely adopted. Wall Street traders could rely on devices for information needed to make quick trading floor decisions. Doctors could use them to



Forest manager's wristband with flexible readout store medical records. Industrial inspectors and scientists could jot down observations while walking around. Repairmen could obtain assistance in the midst of a complicated job.

Thousands of Federal Express delivery people are now equipped with wearables so that the company can better coordinate its efforts around the world. Another company, Symbols Technologies of Holtsville, NY makes a wearable device in the form of a ring with a built-in Universal Product Code (UPC) reader and computer display. When pointed at any product with a UPC bar code, the ring can pull up reviews, instruction manuals and other information about the product.

"Equipped with wearable devices, people can finish a presentation while sitting on the subway"

Tailoring For A Better Fit

Although their potential is vast, many of these devices suffer from a common problem: they are mostly oblivious to you and your situation. They don't know what information is relevant to you personally or when it is socially appropriate to "chime in". The goal in solving this problem is to make electronic aids that behave like a well-trained butler. They should be aware of the user's situation and preferences, so they know what actions are appropriate and desirable—a task I call "situation awareness". They should also make relevant information available before the user asks for it and without forcing it on the user—a task I call "anticipation and availability".

For situation awareness, the wearable device can employ sensors of various types to determine where the user is and what he or she is doing. The device can also monitor the user's choices and build a model of his or her preferences. A person can actively train the computer by saying, "Yes, that was a good choice; show me more," or "No, never suggest country music to me." The models can also work solely by statistical means, gradually compiling information about the user's likes and dislikes.

For anticipation and availability, the wearable device can take a few key facts about the user's situation to prompt searches through a digital database or the World Wide Web. The information obtained in this manner is then presented in an accessible, secondary display outside the user's main focus of attention.

A good example of memory augmentation devices that use these design principles are electronic navigation aids relying on global positioning system (GPS) satellites. The typical navigation aid has a display that constantly shows one's current position on a map and indicates with an arrow how to reach the stated destination. There are hand-held versions for hikers and plug-ins for laptops, but most are currently found in automobiles.

The promise of never being lost is a strong selling point for these aids, but they can do much more: for example, the devices can use your current location to automatically call up information about nearby landmarks. You don't have to type in queries to find the local restaurants or gas stations; everything is retrieved on the basis of your present position. The ease and utility of such automatic indexing is making navigation aids a huge commercial success.

A wearable version of this device is now being manufactured by Motorola with advice from my students and me. The US Army is currently field-testing these GPS navigation and communication systems on its troops and plans to outfit tens of thousands of soldiers with the technology in the next few years. Of course, the same wearable aids can just as easily be used by

Smart clothing, hair, jewellery, and make-up that change with the wearer's mood tourists. The system would include a GPS sensor, a wireless connection to a digital database (such as the World Wide Web), a microphone and a digital camera. When you visit a tourist attraction, the device could show you the historical facts about the site, and then give you directions to the next stop on your itinerary. You could then wander around at your leisure with the wearable equivalent of a personalised tour guide.

While it is impossible to say exactly where wearable intelligence technology is heading, I suspect the trend will be toward devices with greater situation-awareness, achieved in part by using additional sensors such as cameras and microphones. The key idea is that you can't know what a person might be interested in unless you know what they are hearing and seeing.

In essence, I want to give the software agents eyes and ears so that they can better understand—and thus better help—their human users. As the tools my students and I build become more reliable, and people become more comfortable with them, the agents could be allowed greater initiative. I expect that eventually many of the small tasks that complicate our lives will be delegated to such agents.

"Wearable devices should be aware of the user's situation and preferences, so they know what actions are desirable"

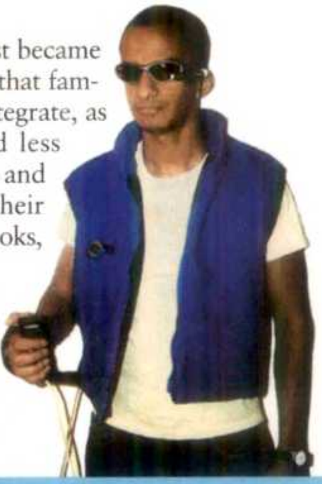
The Body Electric

Another important wearable device is the medical monitor. Today, your doctor gets a "snapshot" of your physical condition about once a year, which is far too infrequently to catch incipient diseases. The failure to do more regular health monitoring is particularly problematic for the elderly, whose health can change quite quickly. Even more troubling is the fact that current medical specialists can't explain how most problems develop, because they only get to see people when something has gone wrong.

However, it is now possible to build small devices that continuously monitor a wide range of vital signs. My students and I are now working with the Center for Future Health at the University of Rochester (http://www.FutureHealth.rochester.edu) to develop such medically-oriented wearables, including early warning systems for people with high-risk medical problems, and "eldercare" wearables that will help keep seniors out of nursing homes. Another simple but important application for a medical wearable is to give people feedback about their alertness and stress level.

Wear Too?

It should be noted that when books first became cheap and portable items, many feared that family life and popular culture would disintegrate, as people spent more time reading and less time talking. The impact of eyeglasses and watches were also hotly debated in their time. But despite gloomy predictions, books, watches, and glasses are now an accepted part of our lives. We've grown accustomed to them, and I think we're considerably better off, even though we're different people because of them. Similarly, wearable intelligence aids will cause adjustments. We should expect them to change both ourselves and our culture.



A man wearing his computer. His glasses have a built-in computer display, the jacket a sewn-in computer and embroidered keypad, and the lapel pin is a camera and microphone combination that classifies the situation: restaurant, laboratory, car, or home.

The great advantage of wearable devices is that they can be with you constantly, serving as a mental aid that is part of your body and part of your everyday life. If we can endow these tools with sufficient situation awareness to make them a help rather than a hindrance, they offer the promise of enhancing human intelligence in a seamless and enjoyable way. bt

By **Vivek Prakash**
Vice President, Samsung Electronics
India Information And Telecommunication

The Convergence Challenge

Convergence is a reality and only those companies with the technological bandwidth to offer a range of products targeting the mass market will survive.

THE LAST TWO DECADES HAVE BELONGED to the personal computer. Now, with the convergence of computing, communication and entertainment technologies, a new set of hybrid devices are becoming increasingly popular. The new wireless regime has empowered consumers and executives alike to use their handsets to communicate anytime, anywhere. Home networking solutions are pervasive, even home appliances have graduated to enter cyberspace. Personal digital assistants (PDAs), mobile devices that handle multimedia information in colour, thinner DVD players, internet-enabled refrigerators, smart phones using popular operating systems, TVs that can access emails—these are among the hot gadgets that are poised to shape this century's digital lifestyle. With an eye on the future, companies like Samsung Electronics have introduced key products, including wireless handsets, advanced display products and extensive home networking solutions. They are simply responding to the changing market demand.

Desk vs Palm

It is not quite right to say that the PC is extinct (it yet remains the most powerful universal electronics solution), but a host of new mobile devices are capable of working with the intelligence of a computer and with the agility of a phone. The conventional PC whose computing power has grown tremendously during the last few years has been relegated to manage desktop jobs simply because of its non-portability. Or it sits in the back-end, storing, analysing, and serving information to mobile users.

For all practical purposes, these advanced handsets—they have morphed from the consumer electronics breed of products—are in fact tiny computers. The growing popularity of mobile phones can be assessed from the fact that today, more people use them, rather than computers, for transmitting short messages. With over 1 billion in use, the base of mobile phones has surpassed the number of fixed lines. Over the last 100 years the number of fixed-line customers added is 240

SHIVAY BHANDARI

SAMSUNG'S VIVEK PRAKASH: Get-set for a digital regime

CONVERGENCE: WHAT IT OFFERS

- Brings together information, communication and entertainment technologies
- Power of digital media to deliver voice, video, data, text, and commerce through new applications, devices and networks
- More information-handling flexibility to home as well as corporate users
- New digital lifestyle

CONVERGENCE: POPULAR PRODUCTS

- Wireless handsets
- TFT-LCD monitors
- Portable DVD players
- Digital camcorders
- Internet refrigerators
- Camera phones
- Smart phones
- Home networks

million; in the past three years alone, the number of mobile phone customers added is a staggering 275 million. Ergo, a new user community has emerged—the 'thumb tribe' that constantly presses the keys on handhelds to stay in touch with others.

These phones are constantly evolving. They have long eliminated the need for a desktop PC to complete routine tasks. They come loaded with web browser, e-mail, and video-playback software, and are supported by faster networks. With the launch of third generation networks imminent (some are already here), companies are rushing to introduce a rash of loaded phones into the market thereby ushering in the era of convergence. These devices aren't voice-only phones; they are MP3 players, PDAs, organisers, and minicomputers rolled into one.

The challenge facing marketers is to encourage people to use these devices more. That will increase the average revenues per user (ARPU) from these mobile networks. Today's killer apps continue to be email, ringtone downloads, and SMS. But imaging and corporate email remain lucrative future opportunities. Imaging has the potential to become a killer app in its own right: phones with colour screens are widely available in the Asian market; Samsung's new SGH-V200 is a phone with a built-in digital camera; users can take and wirelessly send digital still high-resolution images. Such products will prove to be among the significant drivers of consumer-based wireless data applications in the converged marketplace.

Among the most useful applications running on these devices will be the wireless internet. Emerging applications will revolve around new ways for mobile users to access the internet and content and utilities specially targeting mobile internet users.

All this requires a tremendous amount of software: traditional computer software players are offering software for smart phones, while mobile phone makers are trying to increase the computing power of their handsets. These developments will complement initiatives in the areas of content and applications and make concepts like gaming on the move a reality.

The key to survival in the new digital regime will be to offer high-quality convergence products to customers. A balanced product portfolio, for instance, enables Samsung Electronics to create products tailored to meet the specific customer needs for each market. The product range includes wireless handsets, LCD monitors, and colour TV sets that could double up as computer monitors (even net access devices when complemented with a set-top box).

"The key to survival in the new digital régime will be to offer high-quality convergence products"

CONVERGENCE GROWTH DRIVERS

- Growing needs of mobile enterprises
- Changing consumer behaviour for computing, communication and entertainment applications
- Efficient networks
- Quality- and feature-rich end-user devices
- Increased home connectivity requirements

The Action At Home

The impact of convergence is no less powerful at home. The internet will remain the main driving force behind digital home applications, but no one expected conventional home appliances to adapt themselves for a converged future. Our HomePAD product, for example, is a new internet refrigerator that incorporates cutting-edge technology in a traditional appliance. In addition to storing food, consumers can send and receive email, surf the internet and watch a favourite DVD by using the internet refrigerator's touch screen control panel—this also serves as a detachable hand-held computer.

Companies are also offering convergence networking solutions that offer entertainment, communication, information, home security, and home automation on one home network. HomeVITA, a home networking brand of Samsung Electronics, is a total solution in this category. It provides devices that enable you to access and control your household appliances even while you're away from your home.

Similarly, a web camera positioned at the doorway, can identify you and your family members based on their facial features and respond accordingly.

The door will open

automatically if your profile corresponds to that stored in the system. Why, household appliances can recognise and operate automatically to the mode preset by a particular family member.

Home networks have numerous other advantages. Children can enjoy the benefits of online education, through the PC that is also networked to the parents' PC for their close supervision. Parents can also monitor the situation in their children's room through web cameras installed within the room.

Likewise, children can enjoy printing photos captured by the digital still camera. They can also do their own film-editing at home having previously made movies using the digital camcorder. Samsung offers complete solutions for all these home applications that promise enhanced television, DVD-quality movies, music, and the internet delivered together to your living room using a combination of computing, communication and entertainment technologies.

The Technology Imperatives

The ability to innovate will be key to the survival of most companies operating in any of the three domains that together constitute convergence. Technology and brand, not manufacturing, have become the critical areas. Advancements in the semi-conductor industry, for instance, accelerate the development of a system-on-a-chip. For any consumer electronics company, this means fewer number of parts, and a simpler manufacturing process. These translate into a source of competitiveness, especially in the convergence market where companies will need to introduce new products with enhanced features at rapid frequency.

"Leaner enterprises are mobile and people can access information any place, anytime, and on any device"

This is core technology and companies need to work towards developing their own instead of throwing money at acquiring technology developed by someone else. A company that doesn't do this will be excluded from groups that finalise industry standards. And it may have to make high royalty payments. Today, most companies can use the same electronic innards to build products of comparable quality; differentiation will come from the use of unique core technology, and from the brand.

Unlike the analogue era, there's not much room for failure in today's hi-tech and high-speed business environment. In such an uncertain environment, companies need to adopt the right mix of solutions and gain operational efficiencies. Today's leaner enterprises are increasingly mobile, and demand seamless integration of home, mobile, and office networks enabling people access information anytime, any place, on any device and use it to make split-second decisions.

The digital convergence phenomenon is just around the corner. Its success will largely depend on the growth in the consumer side demand, and vendors' capacity to respond to that demand—at the right time, at the right place, and with the right device. bt

By Jayant Murthy
General Manager, Marketing,
Intel Asia

My Tech-heavy Home

A tech executive foretells a future when homes will have as much intelligence as a space shuttle, maybe more, courtesy smart devices.

THIS DECADE IS TRULY A "DIGITAL" ONE, with information technology touching consumers, corporations, and governments. As the internet goes to the farthest reaches of the globe, there will be an exponential increase in the penetration of digital devices into the marketplace.

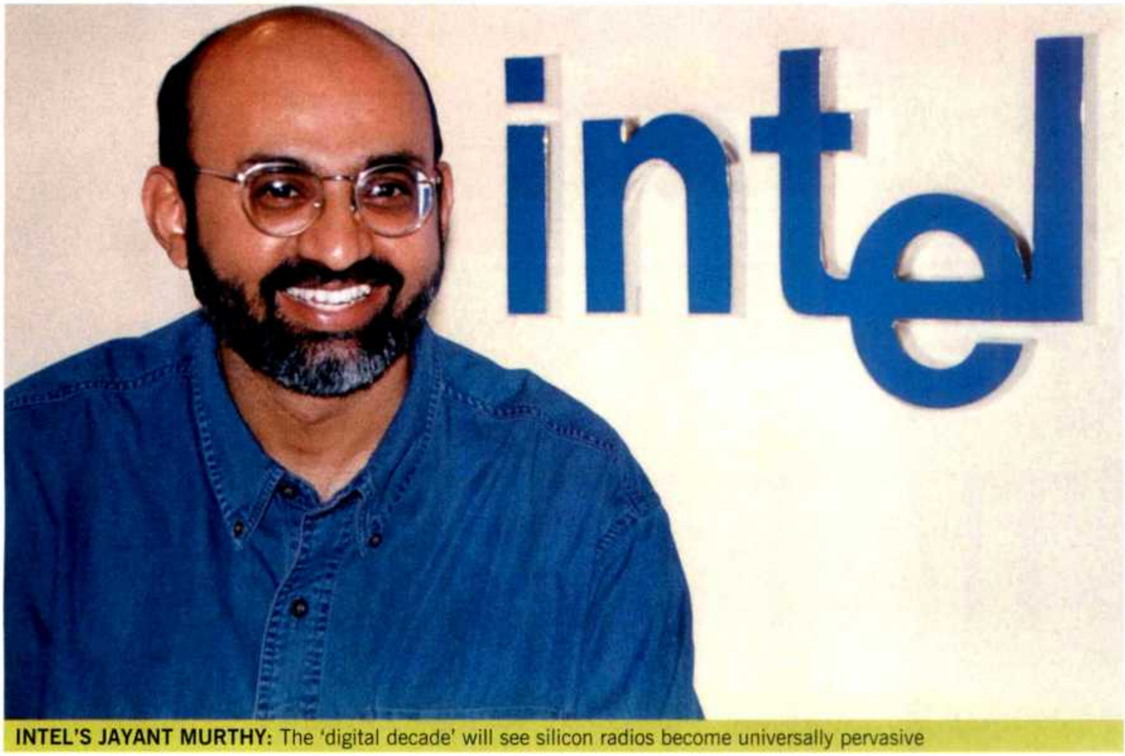
Consider a grocery store owner in Bangalore. His favourite pastime is to come home in the evening and morph into a couch potato. Only, instead of a TV remote, he picks up his phone, dials a number that connects to his TV that displays a menu of options: movies, train schedules, encyclopedias, restaurant and doctor listings, and more. This is one of 4,000 homes in Bangalore connected to a cable TV-based home and office interactive service. And this is just the beginning of the convergence of telecommunication networks, televisions, and computers.

All Hail The Digital Future

One of the most significant things about the future will be that all computing devices will communicate and that all communication devices will compute. Silicon radios will be integrated into chips having wireless radio communication capabilities. Soon there will be radios everywhere, compact and integrated.

A glimpse into the digital future could run thus: My alarm clock wakes me with its daily cliché. As I step into the shower, the voice of my personal shower buddy appears and asks me how I feel. It reminds me that it is my birthday with a muzak reproduction of "Happy Birthday". The song is interrupted by a message from my personal home network. It's a voice simulation of my mother wishing me happy birthday.

I realise I am out of milk and get my kitchen buddy to search for the closest shop. It then informs the personal devices in my home, updating them with information about the location of the store, the quantity of milk required and the cost. My personal communicator connects me to the store. I select the 'immediate home delivery' option and pay from my wireless wallet. I receive confirmation of the order, another confirmation of the amount debited from my banking account and a promotional offer for chicken. Minutes later, the doorbell rings. The deliveryman pulls out an electronic ID *for the identification camera. The door buddy identifies the*



INTEL'S JAYANT MURTHY: The 'digital decade' will see silicon radios become universally pervasive

deliveryman and opens the door. Leaving home later, I realise that I have again forgotten to lock up. The guardian buddy on my phone takes care of that. My car no longer has a key; I enter my security code and the door opens automatically, welcoming me. On the way I get my car buddy to write an agenda and send it to those attending a meeting I have called for in the morning. It also updates me on the day's programme. My automatic car service manager warns me I shall need petrol and presents optional service stations with directions on screen.

At work, I get a notification on my mobile phone that I have entered a new network area and that all my devices will be "synchronised" with it. In meetings, my personal assistant buddy takes notes, translates them into the appropriate languages and distributes them, also scheduling a new meeting in all the participants' calendars for next week, all on my directions. At the first available desk, I log in to my personal server. Immediately all my files, e-mails, and messages are downloaded and I can start to work. At the end of the day, I get a message on my personal device that my friends are trying to locate me. I enter the 3D virtual world where I can have a real-time chat with friends before meeting to celebrate my birthday. After a pleasant dinner it is time to go home and rest. At home my good-night buddy switches off the light and turns on the Vangelis.

The Great Opportunity

As evident from my ruminations, we will soon see the emergence of a new breed of digital devices. These will have dual capabilities of communicating and computing. A mix of various radio access technologies will make the seamless communication this entails possible.

Silicon radios will get integrated into microprocessors, making it possible for chips to conduct two-way conversations with other digital devices. Mobile phones, refrigerators, microwave ovens and even washing machines will be able to interact with each other.

Innovation and change will continue to drive the "Digital Decade". With an increased focus on educating the next generation on how to use technology and investment in research and development countries like India can take a leadership position and build a more prosperous future for the new century and the new economy.

By Hyun Park | Vice President, Network Systems & Solutions Team, LG Electronics

I Am John's Home Of The Future...

I am Jane's home of the future too and there's very little I can't accomplish, thanks to a network of intelligent appliances.

LG'S HYUN PARK: The future is here

IT IS A HOT SUMMER DAY AND JOHN isdriving back home from work—it's a long commute; home is two hours away from work. Along the way, he uses his mobile phone to access his home network server and connect to the air-conditioner in his living room. The display on his phone shows that the current temperature in the living room is 29 degrees Celsius. There's a hint of rain in the air and the humidity is nudging 70 per cent. John uses his phone to set the temperature at a comfortable 24 degrees and select's the air-conditioner's dehumidifying option.

Evolution, especially that of humankind, remains a sticky issue in the 21st century with every three people sharing, between them, at least four arguments on it. However, there can be no argument over the fact that the 'tools' that enrich our lives have been on a consistent path of evolution. The internet, a universal global network that surrounds all of us is bringing about changes, incremental and radical, to the way we live and work. Human society is increasingly becoming networked. There are convenient options to everything. Together, these constitute the starting point of a concept I'd like to call the home network, something that is changing the very look of our homes.

The Wondrous Multi-player Home Network

The glimpse of John's life described above is not an excerpt from a science fiction book that is yet being written, but a nugget of reality brought about with the help of the Home Network. For those keen on definitions, a home network is something that builds a two-way communication link between various home appliances. Televisions, refrigerators, air-conditioners, washing machines, and others of their ilk can communicate with each other. What's more they can be controlled through the internet using computers, even mobile devices such as phones and personal digital assistants.

Remote-access and -control is the most visible of the cutting-edge technologies that constitute the home network. It allows you to monitor the status of all your appliances through any device that is networked—this includes new-age refrigerators and television sets—or the ubiquitous PC or mobile device. You may be at work or on the road but you can access important memos left behind at home, check on the progress of the roast chicken in the oven, set a different wash cycle or reset the air-conditioner. Still better, home network appliances can access their own websites. The air-conditioner can download a new air-flow method, the washing machine, a new wash cycle, and the oven, some new recipes. And most of these appliances can double up as televisions (they all have displays), digital cameras, music players, and organisers.

Newer Technology For Better Lives

The home network is engineered to deliver maximum convenience by leveraging the synergy created by several appliances working in tandem—the whole, in this case, is definitely better than the sum of its parts. Not convinced? Let's look at a slice of Jane's life.

"The home network will remain a technology-for-technology's-sake until people start leveraging it to improve their lives"

Jane, John's wife is a middle-school teacher. One day, in the middle of science class she realises that she left the laundry in the washing machine the previous night fully expecting to turn it on the next morning. She gives the class a reading assignment, uses her mobile to access her home network server and connects to her washing machine. Using her phone she selects the wash-load, the wash cycle, and the drying options. Two hours later her phone flashes her a message that her clothes are ready to be unloaded.

The same afternoon, at lunch, Jane receives a message from John. He's bringing over some colleagues for dinner. Jane's phone comes out again. Again, through the home network and the refrigerator she takes stock of what she needs to buy. She uses the refrigerator's menu (viewed on her mobile) to select a chicken dish. The refrigerator then connects to a web grocer and orders the ingredients. Jane knows that when she reaches home in the evening she'll find the groceries waiting outside her door.

As evident from the lives of John and Jane, the home network changes the way we lead our daily lives. What was in the realm of fantasy and science fiction only yesterday, is now possible. More importantly, home network appliances are accessible or available to everyone today.

A Life Changer

The most sophisticated electronics product, with all its bells and whistles, is merely a decoration until it is really used. Thus, the home network, for all its technological wizardry and the convenience it promises will remain a technology-for-technology's-sake until people start leveraging it to improve their day-to-day lives. It is important to make people aware of the benefits of home networks, almost as important as product- and technology-development.

Several companies need to work together to achieve that common objective. Home networks can accomplish what they are capable of only when players across sectors such as telecom service providers, telecom infrastructure builders, software developers, hardware manufacturers, and companies that write applications for appliances work together.

The success of the home network will signify the development of humankind in the 21st century. bt

By **Wim Sweldens**
Vice President, Computing Sciences
Research, Bell Labs

The Hi-tech Home

Intelligent networks and devices and the not-so-tech realisation that home is where ones loved ones are will reside at the core of tomorrow's home.

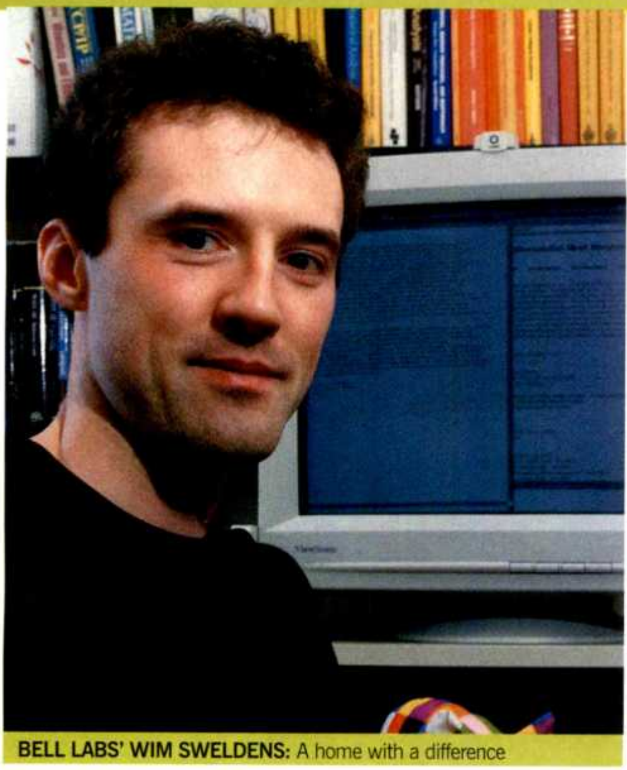
OVER THE LAST CENTURY TECHNOLOGICAL innovations have had an incredible impact in our homes. Starting with electricity, phones, electronic appliances, and more recently home computers and the internet, our home has changed so fundamentally that people from the last century wouldn't even recognise it or be able to function in it. The same will be true for the next century.

What will enable the home of the future? Networking. Broadband communications both to, and within the home, will serve as the foundation. First, I'll describe what the role of the network will be in the future home. One thing the network will enable is the reduction of redundant functions amongst many different appliances. For example, appliances such as PCs, phones, stereos, TVs, or game devices all have speakers. In the home of the future, many different devices can all share the same speakers— there won't be any need to have their own. Some speakers will be worn as headphones, while others may be embedded in the wall, or in the furniture. When a new device like a TV is introduced to the network, the network will recognise its needs, and allocate the necessary resources. If the TV is placed in the family room, the audio part of that show should be played on the family room speakers. If the phone rings during a programme, the speakers should then switch to telephone mode, or to stereo mode when the homeowner wants to listen to music. The home network will always make sure that the right content gets routed to the right device at the right time. The network will enable on-the-fly configuration of services or entertainment, where devices assume functions based on a users desire, when and where needed.

In particular the home network will connect four different component groups: input devices, output devices, storage, and services.

Output devices will transform digital data into a format for human consumption. For example, speakers will deliver audio, and screens will deliver video throughout the home. Some of these new screens will be in the form of a huge display wall, an electronic frame, digital paper, or wearable goggles. They may bring you content from the PC, a TV, or maybe even a shopping list from your refrigerator.

Input devices will transform human generated content into digital information. Examples are microphones powered by advanced speech recognition software, video cameras, or keyboards. Again many of these devices will have wearable variants similar to the headphones or goggles used for output.



BELL LABS' WIM SWELDENS: A home with a difference

THE KEY COMPONENTS OF FUTURE HOME NETWORKS

- Output devices that transform digital data into a form fit for human consumption
- Input devices that will transform human generated content into digital information
- Storage facilities that will house all digital media users wish to preserve
- Services such as phone calls, video conferences and web access that multiple devices will deliver

Home storage facilities will contain all the digital media I care to preserve. This may include music, or films that I've acquired; family photographs, or even home movies. The media can be distributed to many different places at the same time—maybe to the bedroom, the car, or my cell phone. Some of this will be stored locally, say on my key chain, while some of it will be on a large home server in my basement.

That brings us to the fourth component: services. Examples are phone calls, video conferences, TV programming, Web access, email, as well as a wide variety of new services such as network-based storage back-up.

The home network can now combine these various components to offer entirely new experiences. If I have a display wall in my family room, I can invite my brother and his family to virtually enter my home. One of the things I'm very excited about is the notion of a "shared family room" session, where my wall seamlessly becomes a window into my brothers' living room. In this session, we can interact with one another as if we were in an adjoining room—he could see my family room on his wall and vice versa. We could leave this up for a couple of days and virtually bump into each other as if we were sharing the same house. That same display wall could appear to be wallpaper one day, or a green forest the next day, or even a big a football match the next evening.

Digital picture frames in my parents' house could be automatically updated with pictures of my kids—thanks to my internet-connected digital camera, which automatically beams new pictures each time I take them.

The home network can have many other pieces of information. My family members can all have identifying devices embedded in our clothing and if we so choose, the home network can be aware of our presence. This way an incoming phone call for my daughter can get routed to the room where she is at that moment, or her favourite music could follow her from room to room, seamlessly switching between different sets of home speakers.

Parties in the home of the future may look the same, but they will sound somewhat different. I can have a party in my house where each of the guests wears tiny hi-fi speakers and unobtrusive microphones. Depending on the room a guest is in at the time, a different style of music could be played. Each guest could also adjust their own personal volume based on their own comfort level—some people may even decide to tune out all together to enjoy a private conversation. This way, the neighbours can sleep quietly.

All of the above will rely on a standard method of communication within the home network—that is what will enable different devices to exchange information in seamless fashion. The same way today's PC is "plug and play" the home of the future will recognise the new dishwasher I just connected and will be able to control it as if I had read the manual, and was programming it myself. It will understand how to control it, when to run it, and exactly what type of detergent I need for it. It will also diagnose itself, and dial out to the local repair shop to request service if needed. Even everyday consumer products will have access to the network via a unique Radio Frequency ID (RFID) tag so when the milk runs low—it will automatically be placed on the shopping list. Or when a light bulb blows, it calls the local hardware store to make sure a new bulb is in stock, and has it delivered to my door.

While the home network will be able to provide a myriad of useful functions without any direct input required from me, it is important to realise that if I want to, I can take back control over my appliances and services with the touch of a button.

I may decide to use my dishwasher the old fashioned way, by manually turning it on and off using the controls on the unit, effectively overruling what the home network may suggest. The human-machine boundary will be incredibly flexible allowing a "give and take" as needed or as requested by the master of the network, also known as "the homeowner".

"Parties in the home of the future will sound different. Guests will wear unobtrusive microphones and speakers"

Another important aspect of the home of the future will be its mobility. While we normally think of our home as one particular location such as a house, our home really is where our family is. With family schedules becoming increasingly more hectic and families often geographically spread out, the home of the future will stretch beyond any particular location and reach into the network to bring people together. A child may be studying thousands of miles away, but broadband networking will make their dorm room appear right next to our living room. While this might not be what they thought "going off to school" was all about, it will enable a meaningful family experience that will be the next-best thing to being there.

Mobility will be greatly enhanced, so that an individual, or family that's on the move, can have any home-based content such as videos, games, school work, or even an address book delivered directly to them wherever they may be. They may be in a car, or at a hotel or even at a sporting event, but if it's on the network—it's available.

Wireless networking will also ensure that any communication—voice, video or data—will reach anyone in any place at any time, according to instructions programmed by the individual to suit their travel plans, personal schedules, or privacy needs.

The technology for the home of the future is being created today. The home of the future will help us manage our lives more effectively; enrich our intellectual, social and emotional needs; while also safeguarding our privacy and security. We at Lucent Technologies' Bell Laboratories are committed to building technology that connects people to information, entertainment, and each other.

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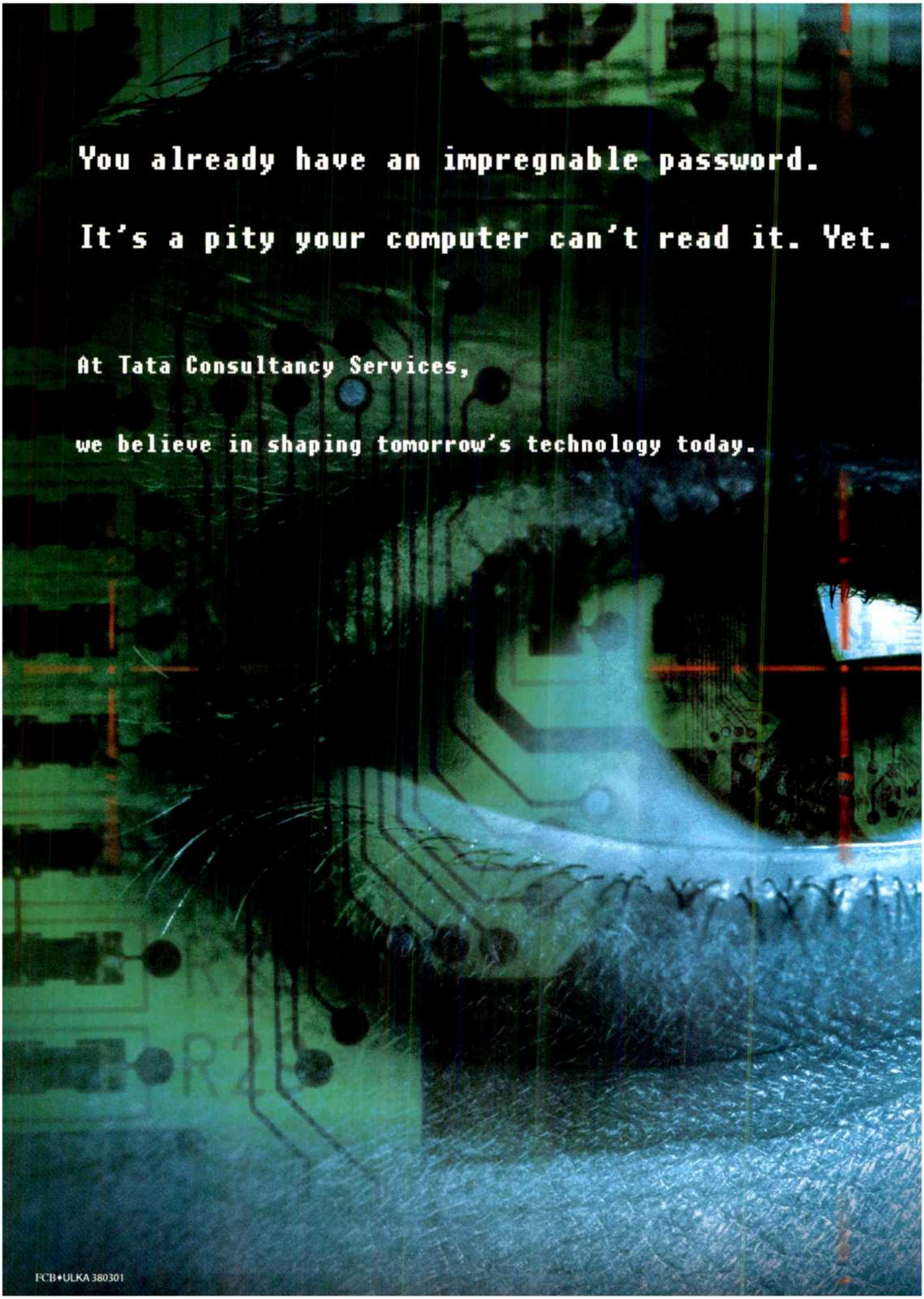
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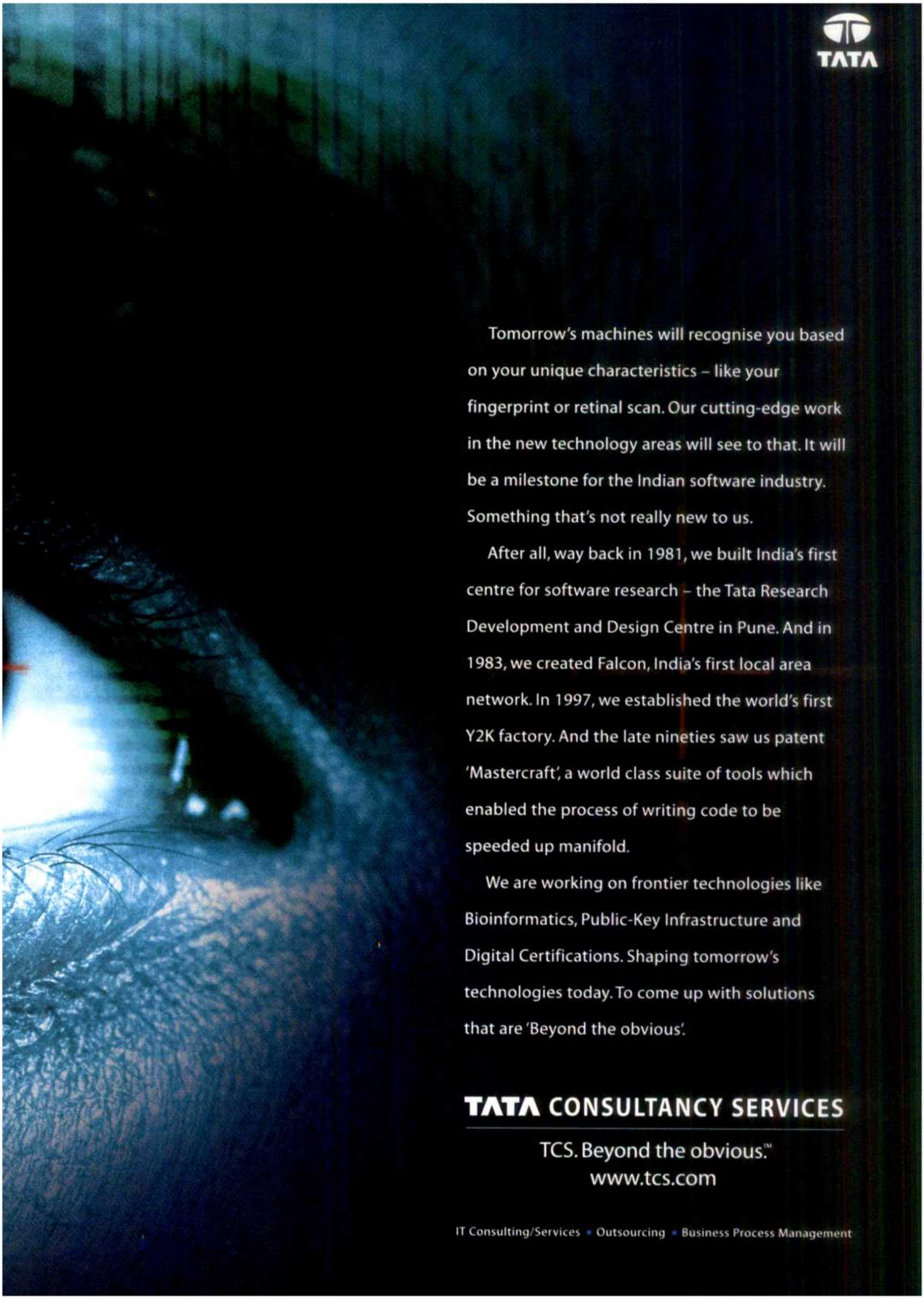

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By **Vijay Mahajan** | Dean, Indian School of Business

Tech Gurukuls

Tomorrow's classroom will leverage powerful electronic tools to radically transform the learning environment and reach out to more students than ever before.

THE CLASSROOM TODAY, BRINGS TOGETHER a wide range of knowledge-seekers with a variety of specific needs. The profile of average university students in the information age is increasingly becoming more aggressively consumer-like. They want high-quality customised products and services in return for their fees. As more and more services are enhanced by innovative use of technology, the needs of the end-users become more and more demanding. Technology feeds consumer needs as it were, and consumer demands exercise pressure on technology to deliver more. This symbiotic relationship is the harbinger of a new era in education.

Factors like increased student-to-teacher ratio, increased teaching loads, lack of interaction between faculty and students are leading to growing dissatisfaction with the current classroom-teaching environment. There is increasing awareness that bringing technology to the classroom is essential to solving the problem of modernising of the country's creaky education system.

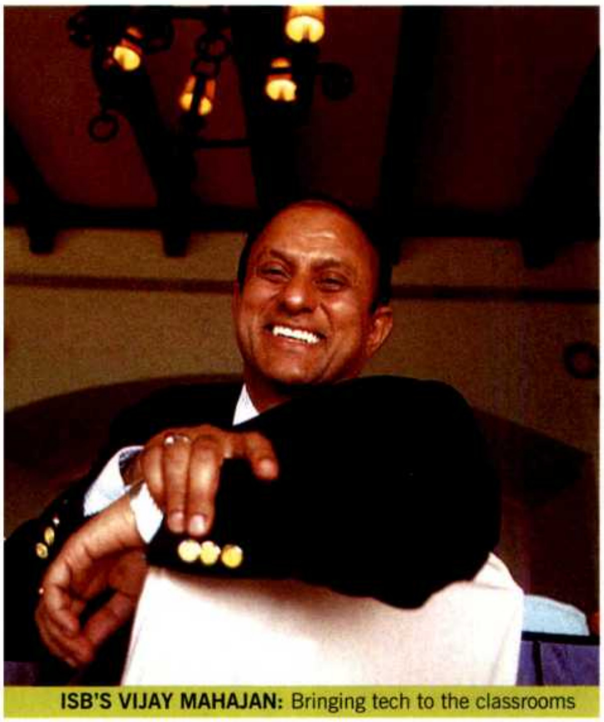
Classroom Of The Future

Technology has already made a mark in higher education. The World Wide Web, multimedia tools, and many other hi-tech teaching aids are already being used increasingly by both the faculty and the students to complement traditional classroom learning. There is growing realisation that the introduction of newer electronic tools can only serve to enhance the quality and effectiveness of education being imparted. Expert opinions and lectures from industry leaders or knowledge specialists, field trips, live experiments, and much more can be brought into the classroom from anywhere in the world courtesy these tools.

The vision of a worldwide classroom with students from different countries beaming into the expert teacher's class, questioning, joking, interacting with one another, is perhaps not far from becoming a reality. The 'technology gurukul', more likely than not, will be the classroom of tomorrow. In fact, I would say this has already begun to take shape in several areas of higher education. At the Indian School of Business (ISB), Hyderabad, students have access to video conferencing facilities through which they link up to select lectures being conducted at various B-schools worldwide. Companies that are not able to travel to India also have used these facilities to interview ISB graduates from various locations across the world. Such facilities and more will become the norm in the near future.

The Architecture

The growing pressure of technology has forced certain changes on the basic architecture of the university campus itself. In future, an effective



ISB'S VIJAY MAHAJAN: Bringing tech to the classrooms

VIVAN MEHRA

learning environment will mean a radically different use of the traditional campus classroom and laboratory space. Campuses in the tech *gurukul* will have more interactive group meeting and study spaces, new types of spaces for interfacing with faculty, and new tech interface sites throughout the campus to support those involved in the business of education—the learner, the knowledge expert and the administrator—at a higher and more effective level.

Tech *gurukuls* would have to radically redesign their libraries as well. Large spaces stacked with rows of bookshelves will certainly be a thing of the past. Students would no longer be poring through various volumes of reference material. Books, journals, and associated information will be made available online. Digitising the entire holdings of the library will make its resources available to learners and researchers both on and off campus. The Learning Resource Centre, ISB's library facility, has made a beginning in this direction. "Anytime, Anywhere Access" is LRC's goal. Services such as remote access to e-resources and databases are some of the advantages that students enjoy. The LRC, which is in its second year of operations, subscribes to 41 online databases, has access to over 2,000 e-journals and stocks 700 AV resources.

An interesting example in this context is provided by a Government of India initiative. The Council of Scientific and Industrial Research (CSIR), and the Ministry of Science and Technology are currently negotiating actively with ScienceDirect, a premier database on science and technology, for a consortia deal. This would mean that educational institutions in India could gain access to the world's best resource for research journals, abstract databases, and reference works.

Similarly, the Ministry of Human Resources Development has also formed the Indian Digital Library in Engineering Science & Technology (INDEST), a consortia of Engineering and Management Institution for higher learning. The consortia is actively offering subscription to Institute of Electrical and Electronics Engineers/the Institution of Electrical Engineers IEEE/IEE, Electronic Library Online (IEL). IEEE and IEE are the most respected sources in the world for reliable, up-to-date information on electrical engineering and other technical disciplines.

However, it would help to keep two things in mind while discussing the impact of IT on education. First, new technologies do not replace the old. They live side by side. Second, people are complex. They retain the same enduring human needs even as they adapt to new technologies and behaviours. I have discussed this extensively in my book *Convergence Marketing*.

I have encouraged discussions with the technology supporters and as we discussed these two viewpoints, we came to the conclusion that both were right: the reality was the hybrid consumer, a 'centaur'—half human, half horse—running with the rapid feet of new technology, yet carrying the same ancient and unpredictable human heart. The educational institution that wants to attract and cater to these 'Centaurs' will have to 'converge' both technological and social needs.

The Guru Still Rules

Human beings have an overriding need to connect with one another socially. A group of friends playing a game, a wedding in the family, a teacher interacting with his class—these are all ways in which we connect with one another. The internet and the mobile phone (especially SMS), two popular media amongst the young, are both used primarily to connect with friends. Human connectivity

is an age old need. The role of teachers is pivotal in the educational process and no amount of tech advancement can replace them from the classroom. Dissemination of knowledge is but one of the roles of the guru. The guru inspires, motivates, and guides the growing mind into productive channels. The *guru-shishya* (teacher-student) relationship is a crucial influence in the socialisation process.

Nor can technology create knowledge. Inventors, explorers, researchers, artists and many others will continue to cross new frontiers of knowledge. Technological advancement has made it possible to enhance the process of creating and disseminating knowledge in innumerable ways, but will have to remain an aid, a tool, to improve efficiency and productivity.

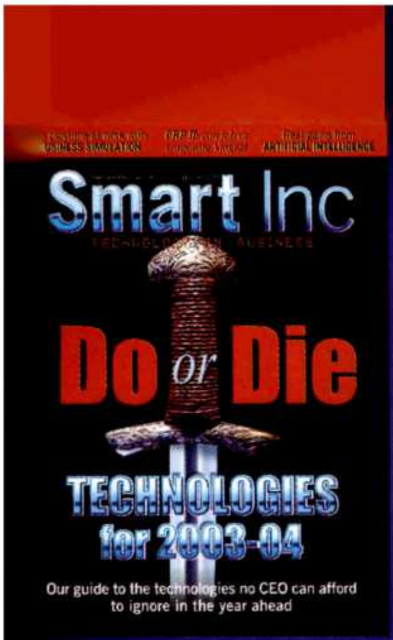
Establishing tech *gurukuls* is an expensive exercise. Although technology is unlikely to reduce costs, it will improve the cost-effectiveness of operations in higher education in several ways—by enabling institutions to reach out to more and different kinds of students; by reducing or eliminating activities that are better done by technology, thus freeing faculty for more productive use of their time; and by improving the quality of learning, either by enabling new skills or by enabling students to achieve existing learning goals more easily and quickly. A technology-enabled campus will also be able to establish a number of efficient business processes that can help the university function like a 21st century corporate.

"Technology brings in its wake widening access, which opens up opportunities for lifelong learning"

The tech *gurukul* will play a large role in reaching out to the underprivileged sections, the 'invisible' section of the population. I have highlighted time and again the fact that marketing managers traditionally target only the affluent and developed markets, which account for merely 14 per cent of the world population. The remaining 86 per cent are untapped, underestimated, and 'invisible' in the global marketplace. Though the percentage distribution may vary, this is largely true in the field of education too.

Large sections of world population are condemned to a life of irredeemable poverty because of the lack of education and resources. Governments can utilise tech *gurukuls* efficiently to dramatically improve the lot of this 'invisible' population. Cheap and easy access is one of the biggest contributions of technology. The Andhra Pradesh government has taken some progressive steps in this area. Along with establishing reliable services for the common man, it has started some educational initiatives to reach out to the rural poor and to improve the quality of existing educational facilities. The Society for Networking for Excellence in Technical Education (SONET), is one such programme, aimed at promoting quality and excellence in technical education.

There really is no last word in this area. The genie of the internet is out and cannot be put back. We are just at the beginning of understanding the technology that is transforming education. The current development of the internet is often compared to the early days of the electric grid, at the electric bulb stage, so to speak. The light bulb is very useful but it is only one of the many uses of electricity. Similarly, when the next-generation internet is deployed, we will use it in thousands of different ways, many of which we can't even conceive now. We'll know we have achieved this when we stop talking about 'going on the internet'. When we switch on the air-conditioner today, we do not talk about 'going on' to the electricity grid. As internet penetration increases and new technology emerges, we need to develop a close collaboration between the tech developers and the users, there has to be an ongoing learning within the community. Both *gurus* and *shishyas* will be 'centaurs' and the tech *gurukul* would continue to evolve and 'converge' human needs with technical advancements.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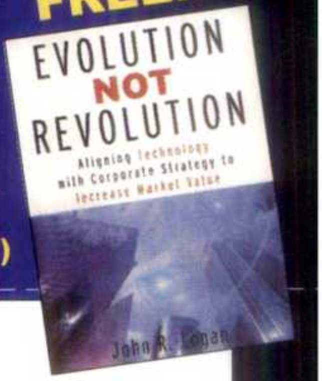
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By **Prathap C. Reddy** Chairman, Apollo Hospitals Group

Healthcare, Star Trek Style

Radical changes in surgery and therapeutics apart, if science has its way, people will not fall ill at all.

Mukesh was getting ready for work when his PDA (Personal Digital Assistant) started beeping. The message said: 31st January—annual health check up.

Before leaving for office he swallowed a capsule and put on a Walkman-like device around his waist. On his way back from work, he drove to his family doctor's clinic and handed over the device.

The doctor connected it to his computer, scanned its contents and in 10 minutes Mukesh had a paper in his hand. This was his annual health check up. No wastage of time, no need for innumerable body scans. And the message from the doctor? All's well.

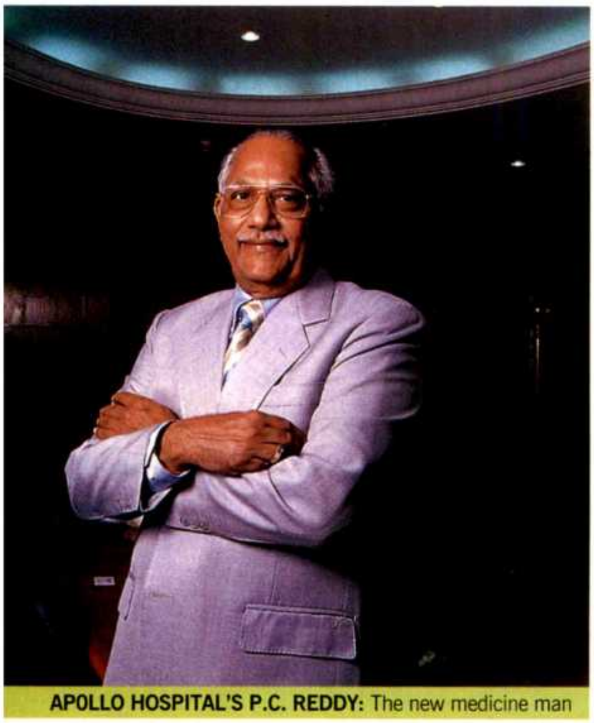
SOUNDS FUTURISTIC? IT IS. WITH TECHNOLOGICAL progress impacting all spheres of life, healthcare is destined to emerge as the most rewarding for entrepreneurs in the coming times.

The evolution of healthcare services over the last two decades has changed the way we look at human life. What the next two decades have in store is, to a certain extent, difficult to predict. But what is certain is that it will be an era of seamless integration of technology and services resulting in profound changes in the business environment. Of all the changes that are around the corner, those in healthcare seem the most promising. More so, because progress in this field has the possibility of fundamentally transforming our understanding of human life.

The Star Trek Generation

Aren't we that already? A heart made of space age alloy, ready to take over its humble and ailing 'organic' counterpart, robots replacing human hands cutting away at cancerous tissue and suturing severed arteries, tiny capsules that travel through the body taking snapshots, all this is tomorrow's technology operational in hospitals today.

Surgery has grown by leaps and bounds, driven by tools that diagnose better and operate with precision. This precision in surgery has also joined hands with the advancements in nanochip design that is reducing the distance between a human



APOLLO HOSPITAL'S P.C. REDDY: The new medicine man

SHIVAY BHANDARI

and a cyborg. In a recent development, a microchip was implanted in the brain of a patient suffering from Parkinson's disease, which destroys the brain's control over motor movements. The chip, which was connected to a personal computer, could be controlled by the patient by just looking at the screen. History was created when the patient instructed his brain to lift his right hand by ordering the chip with his eyes.

Developments in the world of medicine are no less dramatic. We are in the fourth generation of antibiotics, each more potent than the previous one; no longer are we at the mercy our glands to produce hormones and enzymes nor are we dependent on metabolic homoeostasis to maintain glucose, cholesterol, and salt levels in the body.

Perhaps the greatest progress made in recent years has been in vaccines. With small pox eradicated and polio to follow suit shortly, the present time marks the triumph of the antibody. A vaccine for HIV virus will make the triumph more complete.

A Look Through The Crystal Ball

So what does the future hold? Healthcare and the science of living will be driven by ongoing advances in biology and technology.

All the rules of healthcare are already being rewritten by the advances in genomics. With the decoding and deciphering of the human genome, the mysteries of health and illness will come unravelled. Once we know the function of each gene, getting rid of a disease causing one in a newly-fertilised egg will not be a difficult task. Parallel and ongoing work on molecular drug targeting and gene therapy will then show their real potential. So will the work on stem-cell research, providing us with a ready pool of cells, tissues and organs to replace and repair damaged ones.

Nanotechnology, a science that promises to take us to a whole new level of understanding of the world around us, is yet another wild card. Smart nanomachines that will be programmed to kill viruses, repair damaged cells and manufacture proteins and enzymes—these are only a minuscule portion of what this new body of knowledge will make possible.

Imaging technology will evolve. Scientists are already at work on a new form of MRI called the Diffusion Tensor Magnetic Resonance Imaging (DT-MRI). By measuring the three-dimensional random motion of water molecules in soft tissues, it will produce intricate images of the tissue's structure, helping doctors better detect development, degeneration, disease, and aging.

The art of practicing medicine will witness changes no less dramatic. Telemedicine is emerging as a potent tool to bridge geographical divides. Along with advancements in robotic surgery, telemedicine and telesurgery can assist patients in remote parts of the world. Evidence-based medicine is already revolutionising the practice; it will become still stronger in time to come. With a seamless integration of databases, medical practitioners will have access to millions of cases to determine which therapies work best in particular circumstances. This will drive costs down and reduce the current unpredictability in medical outcomes. Data-mining programmes will help physicians move much more rapidly and effectively through the decisions of diagnosis and therapy, isolating rare diseases, differentiating between similar syndromes and discovering the most effective therapies.

The other important development will be that of reprioritisation of healthcare objectives. A concept that is already being pioneered by hospitals world over, 'from illness to wellness', will define the priority of healthcare in tomorrow's world. This would mean a greater focus on preventive healthcare, with curative action becoming merely a secondary function. This will radically change the delivery mechanisms, with the practice of medicine moving out of hospitals and back into clinics, offices, workplaces, schools, and homes.

Where Would India Be?

Until a time when machines not only execute but also direct and perform on their own, and perhaps even after that, the real driver behind these futuristic healthcare scenarios will continue to be the intellect of medical practitioners. The countries endowed with the most gifted brains will be at the forefront of this revolution.

Indian brains, guided by healthcare groups like Apollo Hospitals and others, will front all major research and development initiatives across the world, and if our own enabling infrastructure and policy environment keeps pace with the demands of the time, most of this work might be happening in our country itself.

The future also holds great promise for traditional and alternate systems of medicine. Our ancient scriptures form a wealthy repository of medical information yet unknown to the rest of the world.

> "Tomorrow's technology: A heart made of space age alloy, ready to take over its ailing 'organic' counterpart"

The natural outcome of our tapping these advantages will be the emergence of India as the world's healthcare destination. The latest of technology and the best of care at a fraction of the cost, a philosophy that even today drives our own Apollo Hospitals Group will be the unique positioning of Indian healthcare in the times to come.

Back To The Future

With more than two decades behind us, we see mind-boggling changes in the making in the field of medicine and healthcare in the not too far-off future. The success that have already been attained forces us to conclude that, if anything, whatever the human brain can conceive of can be realised. In fact, much more. And along with these advancements that are ready to replace today's motorcars with Starship Enterprises, will also come debates; debates that will shape the future of life and that of living. One of these innumerable debates is unraveling today. With the immense, almost god-like power that science and technology will bestow on us, will we use it to prevent illness and disease in the human race or will we instead reengineer the race itself in a manner that makes it disease-free? With rapid strides in the science of cloning, technology will certainly not be an impediment in making these decisions. These, along with other similar debates on ethical dilemmas facing the human race will be critical in shaping the course of healthcare and medicine of the future.

Whichever direction healthcare takes, it will be a journey full of thrill and excitement and immense rewards. And as the legendary Gene Roddenberry, the creator of the space saga *Star Trek*, the work that has since then become the universal reference point for all things futuristic, puts it, the journey certainly promises to be a mission to the final frontier. A mission to explore strange new worlds, to seek out new life, to boldly go where no man has gone before. **bt**

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By **David Whelan** President, Stroudwater Associates

The Final Diagnosis

While advances in medical technology will ring in drastic changes in diagnosis and treatment of ailments, they also pose deep moral dilemmas for the old social order.

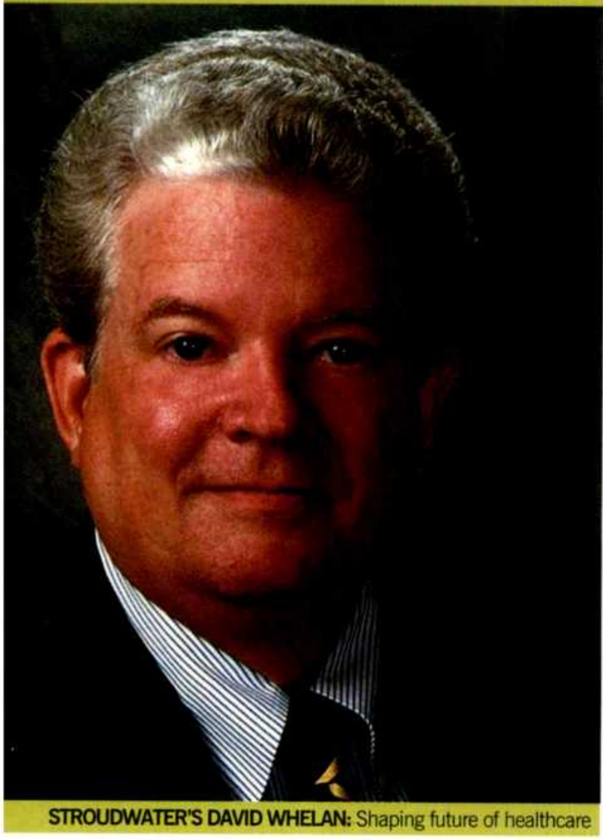
HEALTHCARE HAS ALWAYS BEEN HIGHLY dependent upon technology—from the stethoscope to penicillin, advances in technology have brought major advances in the diagnosis and treatment of human illnesses, with corresponding societal implications. The average lifespan increased dramatically in the 20th century, largely due to advances in healthcare treatment, including public health initiatives such as the virtual eradication of small pox. The cost of healthcare has also increased exponentially as the technologies we use become more expensive.

At the beginning of the 21st century, we stand at the threshold of even more amazing advances in healthcare technology, which will have profound social, economic and ethical consequences. How can we make the expensive treatments for AIDS available to all who need them? What will be the impact on society of a higher proportion of elderly who live longer? Should genetic engineering of fetuses be allowed? How will a society pay for healthcare, at what level and for whom? The advance of healthcare technology will create profound benefits and problems in the next few years based just on the technologies coming into use today.

To understand some of the more significant trends in healthcare technologies, we will look at three major categories—medical devices, biotechnology and information technology. In addition to describing a sampling of the technologies that will shape healthcare in the near future, we will also examine some of the implications of the application of these technologies.

Devices That Change Lives

In the last 10 years, medical devices ranging from the CT Scanner to the Laparoscope have changed the diagnosis and treatment of illnesses. The CT Scanner, and more recently, the MRI have given physicians a view into the human body of unprecedented clarity and precision. Exploratory surgery has been all but eliminated. Cancers can be diagnosed in very early stages for treatment. PET scanners can even monitor the chemical activity of specific areas of the brain to diagnose epilepsy and other diseases of the brain. In treatment, technologies such as the laparoscope, which allows surgeries to be performed



STROUDWATER'S DAVID WHELAN: Shaping future of healthcare

through two small incisions, has enabled the majority of surgeries to be performed as outpatient procedures with no overnight stay. There are now medical devices being developed that will shape the future of healthcare even more significantly.

In diagnostics, imaging technologies, including CT, MRI and PET, are being improved dramatically, increasing the speed and image quality of the scans. Ultra-fast CT scanners are now being used to view the beating heart of a patient. The application of Magnetic Resonance Scanning to cardiology is particularly promising. Cardiac Catherisation—which involves the insertion of a catheter or tube into the arteries of the heart and injection of a dye that can then be viewed on a real time X-ray—has saved many lives by helping detect blocked arteries. It is, however, an invasive procedure with all of the attendant discomfort and risks. Magnetic Resonance Angiography, now being developed, will be a non-invasive alternative to Cardiac Catherisation and will lead to earlier screening for heart disease.

Diagnostics will also benefit from advances as simple as disposable tests using monoclonal antibodies that consumers can use in the privacy of their homes to test for a variety of ailments; portable monitors to continuously record health conditions and send the information wirelessly back to a hospital or a physician's office for analysis; even diagnostic devices that can be swallowed or injected into the body to record visual images as well as data. Physicians recently used a "pill" with a tiny camera that the patient swallowed to view parts of his intestinal tract.

The same trends toward more intelligence and better sensors in smaller packages that benefit other industries will help to revolutionise healthcare. On the high end of the technology scale, complex and expensive devices will provide the ability to virtually "see" any part of the body and record its functioning. At the other end of the spectrum, smaller, cheaper devices and tests will move many functions out of the hospital and doctors' offices and into the home.

The impact of advancements in medical devices will be equally dramatic in the treatment of disease. Robotic surgery will not only enhance the ability of surgeons to perform ever more delicate operations with minimally invasive techniques, it will allow a physician in one country to transfer his skills electronically to another country. Already, a surgeon in the US has taken out the gall bladder of a patient in France robotically. New lasers are being developed that are "tuned" for particular effects, such as only heating certain types of tissue. Heart surgery is being changed dramatically through "keyhole" surgery and surgery while the heart is still beating. There are even programmes to combine advances in diagnostic imaging and robot-assisted surgery in the same operating room. A programme at Johns Hopkins University is creating a completely automated operating room in which a patient will be scanned in the room, a three dimensional image of the site of the illness will be constructed electronically, the surgeon will practice a simulated surgery on the patient and will programme a robotic assistance device to help conduct the actual surgery—all in the same room.

All of these technologies extend the surgeons' skills and capabilities while limiting the trauma associated with traditional surgery. Some day heart surgeries may even become outpatient procedures.

Biotech At The Forefront

Some of the most exciting frontiers of healthcare are in the advancing knowledge and application of biotechnology. Traditional pharmaceutical research, while continuing to provide impressive new drug therapies, albeit at a high cost, is being overshadowed by the promise of genetics. Our knowledge of the human genome is growing at an exponential rate. The mapping of the human genome is one of the great achievements of science. The promise is compelling—rather than treat disease with drugs that work on a cellular or higher level and are often developed with a trial and error process, we will be able to alter genetic instructions at a molecular level to correct the problem or stimulate the body's own curative powers. We can even envision using genetic coding to induce the body to grow replacement organs as needed.

> "Today, the internet offers access to information about virtually every aspect of health and healthcare treatment"

Growing new organs on demand may be far in the future. Of immediate value is using our growing knowledge of genetics to identify persons at risk for certain diseases. Already many couples are having their unborn babies tested for serious chronic diseases and for a susceptibility to diseases. In fact, genetic counseling of couples considering having children is becoming common. Finally, in adults, genetic testing can identify the predisposition to certain chronic illnesses, allowing the person to take steps to prevent or control the disease before it happens.

The reality is that while the human genome has been mapped, we know the purpose and function of only a tiny fraction of the genes in the human DNA. Furthermore, many diseases often are affected by multiple genes. Consequently, we do not know when we will see the promise of genetic treatment, but when we do, it could revolutionize healthcare.

Changing Face Of Healthcare

Healthcare is an information-driven endeavor. We are familiar with the traditional application of information technology to the business aspects of healthcare—billing, accounting and the like. Clinically, information is even more important to the healthcare process. Much of the resources in healthcare are devoted to collecting, analysing and disseminating diagnostic and treatment data. While healthcare is dependent on accurate and timely information at all levels, it is a notoriously fragmented industry. Physicians cannot access information from the hospital and must spend precious time on the phone or at the hospital gathering information on a patient. Hospitals cannot access information from physicians and consequently duplicate tests. Even departments in a hospital cannot access all the information on a patient and rely on the transfer of paper records. Compared to other industries, healthcare is years behind in managing information electronically. The industry has not even been able to implement a universal bar code for medical supplies, a minimum standard in most industries.

The solution to this balkanisation of information is the electronic medical record, which will store all diagnostic and treatment information on a patient in an accessible electronic format available to all clinicians treating that patient. While many hospitals and health systems are aggressively pursuing a fully functional EMR, it has been an elusive goal. Kaiser Permanente, one of the largest healthcare systems in the US, has just abandoned their internal effort to develop an EMR and signed a $1.8-billion contract with a software company to implement their EMR for Kaiser's 8.4 million subscribers. This new medical record would be accessible not only by clinicians but by the patient to involve him in as an active member of the treatment team. It is increasingly likely, with the advent of the internet, high speed broadband connections and wireless networks, that the goal of a truly accessible electronic medical record will be reached in the near future. The benefits will be better coordination of treatment, reduction of medical errors, more efficiencies and a more informed consumer.

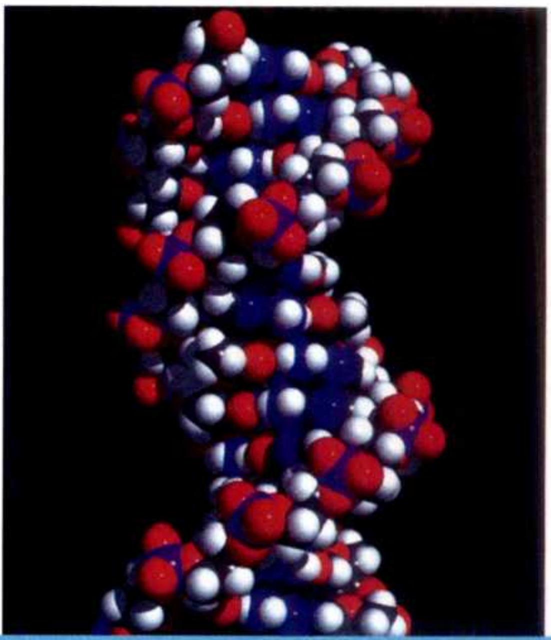
Advances in other sectors of information technologies will also impact healthcare in the future. Telemedicine will enable specialists in one city (or country) to assist in diagnosis and treatment of patients many hundreds or thousands of miles away. This access to real-time assistance from leading specialists could have a huge impact on the availability and quality of healthcare in rural areas. Already, the University of Miami has a programme to make its medical specialists available electronically to many countries in Latin America and to participate in the treatment of patients with local physicians. As we discussed earlier, telemedicine may even progress beyond sharing information and include the transfer of surgical skills through robotic surgery.

Finally, a discussion of the impact of information technology on healthcare would not be complete without recognition of the tremendous impact on the consumer of the internet. A decade ago the primary source of medical information available to the consumer was his physician, or more often, a friend or relative. Consumers were passive participants in their own healthcare. Today, the internet offers unprecedented access to information about virtually every aspect of health and healthcare treatment. Consumers more often than not now show up at the physician's office with printouts of information from WebMD or the Mayo web site. It is estimated that over 80 per cent of all cancer patients in the US now research their disease and treatment alternatives on the internet. An informed consumer becomes a partner in managing his own healthcare, adding an important resource to the healthcare team and leading to faster diagnosis and more compliance in treatment.

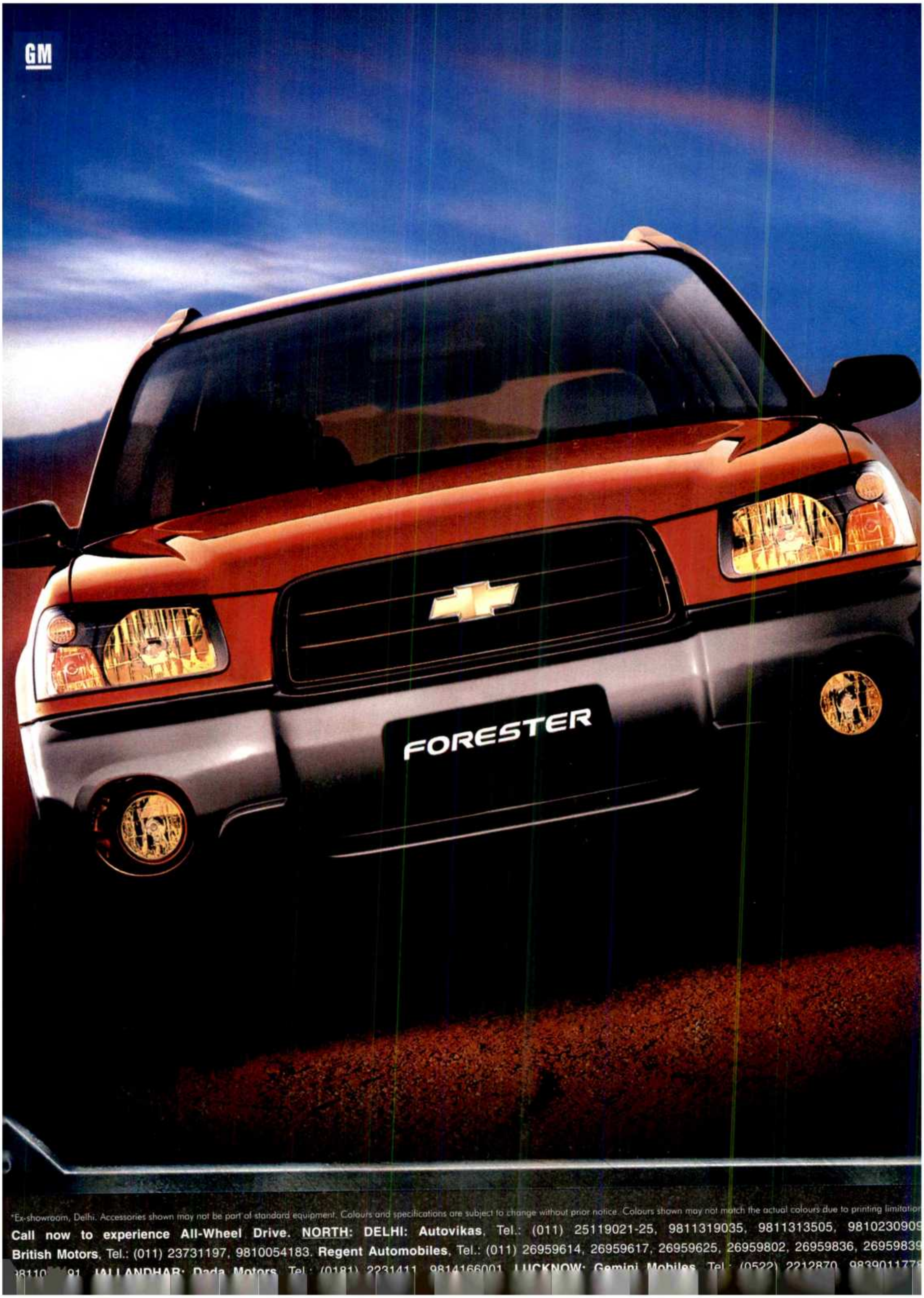
> "Our knowledge of the human genome is growing at an exponential rate. The promise is compelling"

Points To Ponder

While all of the technologies discussed, as well as many more yet to be unveiled, will undoubtedly lead to better diagnosis and treatment of disease and lead to a longer and better quality life, these technologies will also pose great challenges to society. Do we make available transplant organs to everyone—even a 90-year-old man with multiple illnesses—regardless of the cost because we can? Should there be any limit to the application of genetic testing and, in the future, genetic re-engineering? How do we insure that the information that consumers rely on from the internet is reliable and accurate? How do we pay for healthcare technology?



As we enter the 21st century, healthcare will be transformed by technology in our lifetime, and will in turn transform the way we live.



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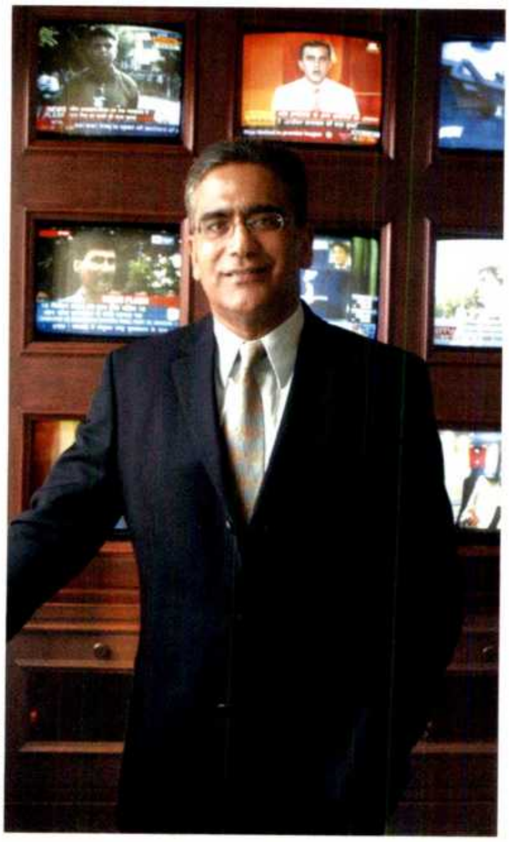

VIVAN MEHRA

TWELVE YEARS AGO, THE INTERNATIONALLY RESPECTED magazine *The Economist* carried a country report on India, titled *The Caged Tiger*. Circa 2003, I can confidently say that the tiger is out of the cage and roaring. Take a look at some key indicators: In that time, India's gross domestic product (GDP) has almost doubled to about \$500 billion; the market capitalisation of companies listed on the Bombay Stock Exchange has soared from \$77 billion to \$197 billion; and even exports have more than doubled to \$44 billion. More importantly, Indian companies were virtually unheard of globally prior to the 1990s, but today I can think of at least a dozen companies that have earned a name for themselves in key markets abroad.

The corporate India of today also looks very different from the one of pre-90s. It is much more professionally run, it follows many international best practices, and it certainly is more global in its outlook. That said, it would be foolhardy to assume that India Inc. has "arrived". The changes of tomorrow promise to be even more disruptive and harder to manage. As we enter the era of knowledge industries, there will be complex IPR issues to deal with. Running a global corporation would require companies to acquire new sensitivity to cultural and people issues. Global marketing would make Indian brands vulnerable to new kinds of consumer backlash. Also, companies would need to tackle legal issues that inevitably emerge in the process of doing business in any country. Some companies have already got a taste of these issues and learnt to manage them, but many others are yet to start down this road.

To get a sense of what the new challenges and issues will be in the 21st century, BT decided to invite 21 of the finest minds in corporate India to write on a range of issues—from corporate governance to rural marketing. The result is this special issue, *The New Paradigm*, which is the fourth in our series on *India Inc: The Next Big Leap*. What's remarkable about the columns that follow is their sense of optimism. Rahul Bajaj, for instance, talks about how corporate governance in India may, in parts, be better than that of Europe. Rajesh Hukku, the man behind India's best-known software product company, i-flex, is upbeat when he talks about creating a Microsoft from within India. G.V. Prasad, the CEO of India's best discovery-led pharma company, Dr. Reddy's Laboratories, doesn't think the product patent regime will mean the end of Indian drug-makers.

Personally, I have always been a believer in the potential of India Inc. And today, at the dawn of the 21st century, I am even more optimistic. For an important reason. Industry today has what it lacked pre-90s. A realisation that it has to change, and a conviction that it can. And as anybody who's achieved anything of significance can tell you, the first step to winning is to believe that you can.

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• Editorial Office (Delhi) 5th Floor, Videocon Tower, E-1, Jhandewalan Extn., Delhi-110055; Tel: 011-23684812-15; Fax: 011-23684819; Cable: Livmedia, New Delhi; e-mail: btoday@giasdl01.vsnl.net.in • Advertising Office (Delhi): 201, Competent House, F-14 Middle Circle, Connaught Place, New Delhi–110001; Tel: 011-23736970-78; Fax: 011-23736217; Cable: Livmedia, New Delhi; Trade Centre, 2nd Floor, Kamala City, Senapati Bapat Marg, Lower Parel, Mumbai—400013; Tel: 022-24983355; Fax: 022-24982266; Cable: Livmedia, Mumbai; Impact office: Trade Centre 2nd Floor, Kamala City, Senapati Bapat Marg, Lower Parel, Mumbai 400013; tel: 022-24983355; fax: 022-24982266. Chennai 2nd Floor, 98-A, Dr Radhakrishnan Salai, Mylapore, Chennai–600004; Tel: 044-28531605, 044-28531719, 044-28591729; Fax: 044-28532178; Cable: Livmedia, Chennai; Bangalore 202-204 Richmond Towers, 2nd Floor, 12, Richmond Road, Bangalore–560025; Tel: 080-2212448, 080-2213037; Fax: 080-2218335; cable: Livmedia, Bangalore; Kolkata, 52, J.L. Road, 4th floor, Kolkata–700071; Tel: 033-22825398, 033-22827726, 033-22821922; Fax: 033-22827254; Cable: Livinmedia, Kolkata; Hyderabad 6-3-885/7/B, Raj Bhawan Road, Somajiguda, Hyderabad–500082; Tel: 040-23401657, 040-23400479; Ahmedabad 2nd Floor, 2C, Surya Rath Building, Behind White House, Panchwati, Off C.G. Road, Ahmedabad–380006; Tel: 079-6560393, 079-6560929; Fax: 079-6565293; 39/1045; Kochi Karakkatt Road, Kochi- 682 016; Tel: 0484-2377057, 0484-2377058; Fax: 0484-370962; cable: Livmedia Cochin • Subscriptions Customer Care, India Today Group, Hamilton House, 1-A, Connaught Place, New Delhi–110001 Tel: 011-23352233 Ext: 171/167/125; Fax: 011-23352875; e-mail: wecare@intoday.com • Sales; General Manager Sales, Living Media India Ltd., Hamilton House, 1-A, Connaught Place, New Delhi–110001: Tel: 011-23352233, 011-23313076; Fax: 011-23712998 • Registered Office K-9, Connaught Circus, New Delhi–110001 •

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Printed and published by Ashish Bagga on behalf of Living Media India. Published at K-9, Connaught Circus, New Delhi. Printed at Thomson Press (India) Ltd., 18-35, Mile Stone, Delhi-Mathura Road, Faridabad (Haryana), and at A-9, Industrial Complex, Maraimalai Nagar, Chengalpattu (Tamil Nadu).

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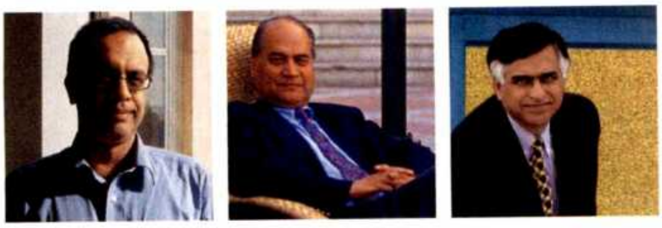

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BT THE NEW PARADIGM: FINANCIAL MANAGEMENT

BY ALOK AGARWAL

PRESIDENT (FINANCE), RELIANCE INDUSTRIES LTD

FINANCING AS COMPETITIVE ADVANTAGE

THE PAST DECADE HAS BEEN A STORY of growth for Reliance. As a group, we have invested more than Rs 50,000 crore in various businesses in the 90s. We are now a global player in each of our core businesses and poised to gain dominance in our new initiatives in telecom and power.

> THE DEEPENING OF THE DEBT MARKETS, DEVELOPMENT OF BENCHMARKS, EMERGENCE OF MUTUAL FUNDS AND ACCEPTANCE OF THE VALUATION OF RATED PAPER ACROSS THE FINANCIAL SECTOR HAVE ENABLED RELIANCE TO FINANCE ITS NEEDS EFFICIENTLY IN THE PAST FIVE YEARS.

Financial management is, to use a cliché, a core competence at Reliance. The investments made by us have been completed while retaining our conservative financial structure, maintaining our AAA rating and high level of liquidity, and achieving a very competitive cost of capital.

Reliance has invested more in assets than any other company in India and has very few peers in non-developed countries in organic growth. It has built world-class petrochemical assets in excess of 12 million tonnes, among the largest refineries globally, with an annual capacity of nearly 30 million tonnes and is the biggest private oil and gas player in the country. For March 2003, Reliance's revenue was Rs 65,000 crore and total assets were Rs 62,000 crore.

THE BEGINNING

We recognised early into the start of the economic reforms in 1992 that reforms were a fact of life and would progress at an increasing pace. More importantly, they would lead to investment opportunities that would make the dreams of being a global player in our core businesses come true. At the same time, we had to contend with the reality that despite high savings rates, India was going to be capital-scarce and Reliance would need external capital for its growth. In many ways, the story of Reliance's growth is intricately linked to the financial reforms in India and its opening up to external capital.

India issued new guidelines in 1992 allowing Indian companies to raise equity from

VANDANA KHANDPAL

international markets and Reliance was the first issuer in 1992 with an offering of $150 million. We went back to the international equity markets twice with a convertible bond issue and a larger equity offering in 1994. The Reliance equity story was now well-known to the international capital markets.

THE TRYING TIMES

In this period, Reliance had commitments from Indian banks and financial institutions for providing the debt portion of its financing needs for Hazira. In 1995, Indian companies were allowed to tap international debt markets and Reliance changed its financing strategy. We decided to give up the inflexible and high-cost arrangements in the domestic markets, and substitute them by foreign currency borrowings.

Indian debt financing was also expensive, and although we had a AAA rating, we were forced to borrow, with a spread, from other AAA-rated institutions. This arbitrage was a reflection of the undeveloped credit markets. During a two-year period, Reliance raised $1.1 billion from international debt markets. It capitalised on the favourable credit environment and name recognition to raise long-term capital at competitive rates.

In the process of raising this capital, Reliance executed several landmark transactions.

- It became the first Indian company to issue bonds in the Yankee, Sterling and European private placement market. It is still the only Indian company to have tapped all the three markets.
- It is the only issuer from Asia with an yield curve across all maturities from seven to 100 years.
- It is still the only issuer from

Asia to issue a 100-year bond.

- It is still the only issuer globally to have issued a split-rated century bond.

These debt financing transactions established Reliance as one of the most sophisticated issuers of debt globally and generated a large following in the international capital markets for India and Reliance's credit story. We also obtained financing in scale and at a very competitive cost.

The deepening of the debt markets in India, development of benchmarks, emergence of mutual funds as a significant new class of investors and acceptance of valuation of rated paper by the entire financial sector has enabled Reliance to finance its needs efficiently in the past five years.

FINANCIAL SOPHISTICATION AND ASTUTE RISK MANAGEMENT ARE COMPETITIVE ADVANTAGES AND CAN BE LEVERAGED TO INCREASE VALUE

Finally, in the area of debt capital, Reliance saw opportunity to raise competitive medium-term financing through syndicated loans. We have raised more than $1 billion in syndicated loans and have drawn upon our relationships with international banks to accomplish this.

HERE'S WHERE WE DIFFER

Reliance's success in international capital markets and domestic debt markets has several underlying themes.

Firstly, it is a commitment to deeply understand each market, including its nuances, practices, and differences with other markets.

We had to learn, on our own, the art of issuing debt in international markets in less than four weeks. The role of investment banks, the due diligence process, the execution mechanics, and the fickle nature of markets and investors marked the international capital markets in the mid-90's. The markets have since evolved greatly and are much kinder to issuers from the emerging market world.

Secondly, timing is almost everything. In a period of seven months, we were able to extend maturities from 10 to 100 years. This was possible only because we were willing to respond to a very bullish market environment to credit. We completed our last issue a week before the Asian crisis became public.

Thirdly, relationships count as much as market-savvy. Though the world of capital markets is very transactional and deal-oriented, Reliance's consistently successful deals have been possible only due to its partnership relationships with investment and commercial banks as well as with investors.

Reliance has been an active user of derivatives to manage the interest rate risk. We also use commodity derivatives to protect margin risk in the refining business. We believe that the actual realised cost of capital depends as much on risk management as the terms of issue.

Financial management at Reliance is practised around several themes. We must be sophisticated and fully committed to the success of each transaction. Each deal must be successful and executed in a best of class manner. We will work only with institutions who believe in long-term relationships.

Financial sophistication and astute risk management are competitive advantages and can be leveraged to increase value of the company. We have to think like any large global corporation and work very hard to eliminate the constraint of being an Indian company. At Reliance, we have come a long way in building skills and strategy for financial management. But the world continues to change rapidly and current strategies will probably be irrelevant in five years.

Consider: About half of the industrialised world faces threat of deflation. China is thought of as exporting deflation globally in manufacturing, while India will probably soon play the same role in services. This will force us all to think about debt and interest rates completely afresh.

Closer home, India has undergone a metamorphosis from a capital scarce country to capital surplus. Private, well-managed corporations have a great deal of flexibility in raising capital at very competitive terms. The country's macroeconomic factors have altered, forcing a rethink of many assumptions business made in the past.

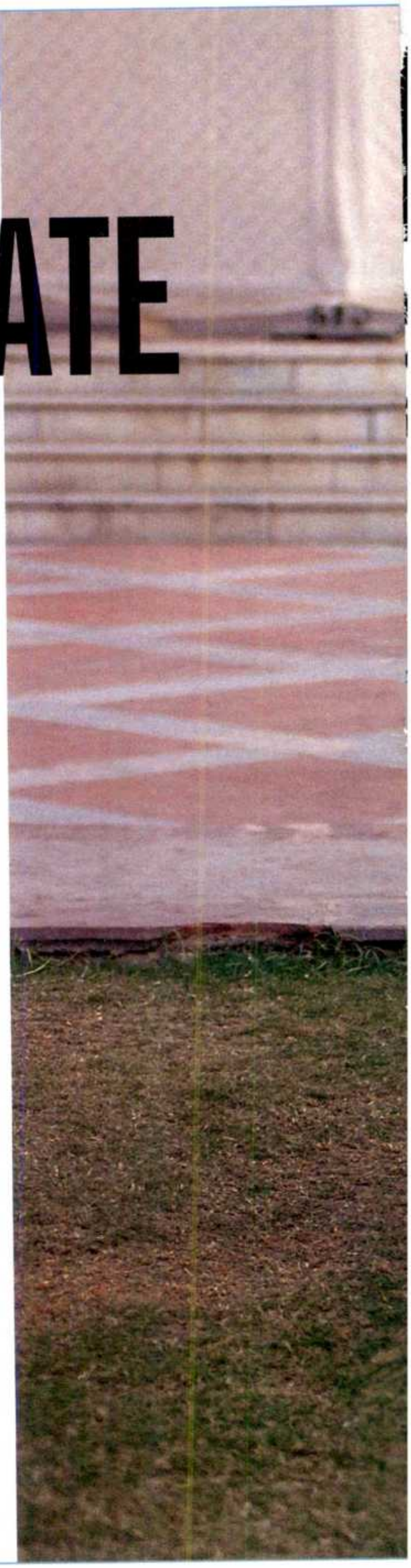
Finally, we are probably closer to capital account convertibility than we think. This event will, among other things, test our skills at financial management as never before. bt

O&M 1841
SEAGRAM'S 100 PIPERS PURE MUSIC SERIES

BY RAHUL BAJAJ

CHAIRMAN AND MANAGING DIRECTOR, BAJAJ AUTO

LEADERS CREATE STANDARDS



RECENTLY, I WAS INVOLVED IN A discussion at the annual meeting of the World Economic Forum in Davos, Switzerland, about the reasons for Enron-like debacles and how to prevent them. At the end of the day, I think, it boils down to the strength of character of the one in leadership. Can he work for a larger good? Can he restrain his ego and his greed? Has he a healthy disrespect for himself? These are both a function of the individual and the company's culture. The company's culture has to reward and punish appropriately.

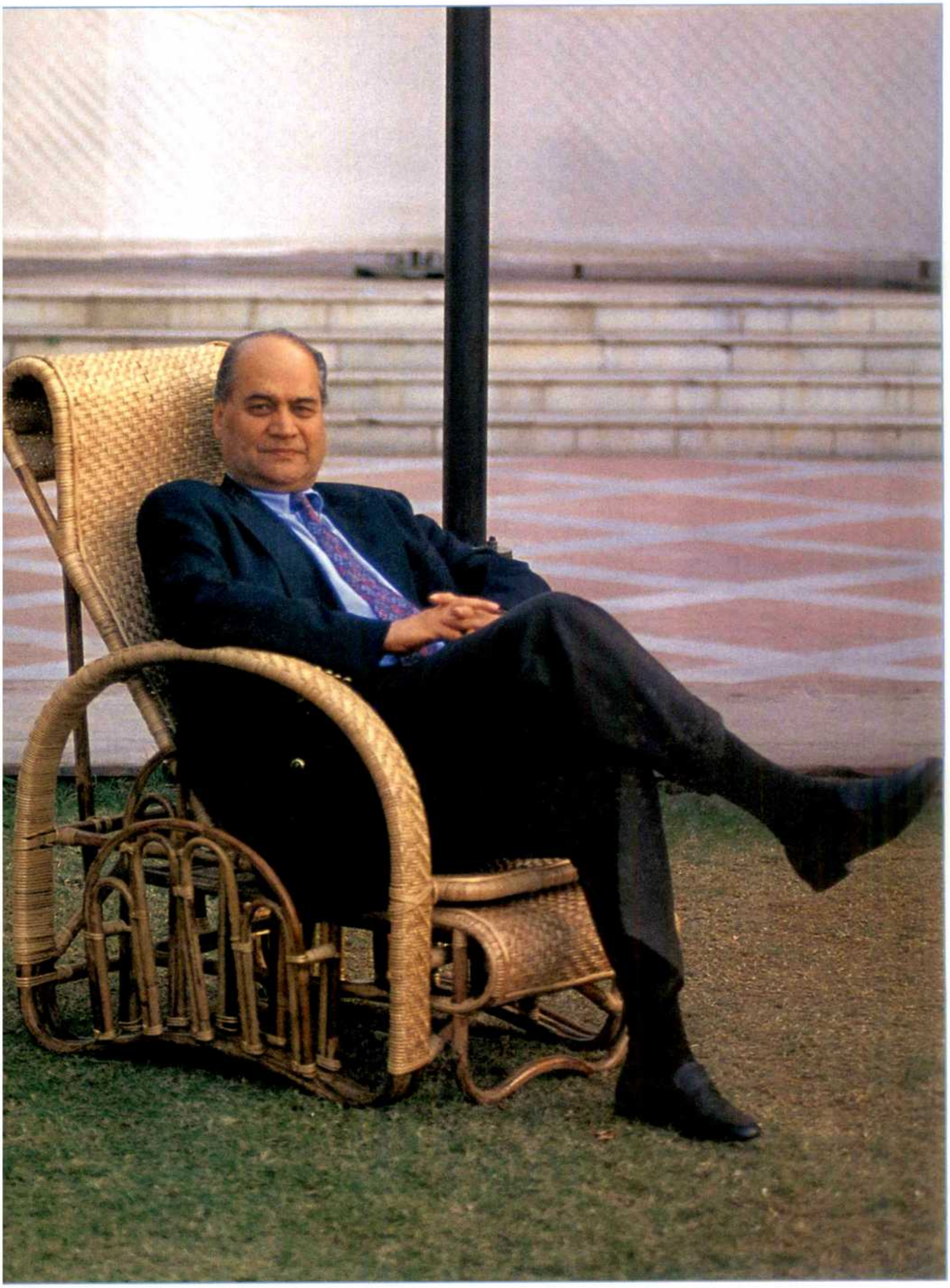
> CORPORATE GOVERNANCE NORMS ARE NECESSARY BUT NOT SUFFICIENT. COMPANIES DELIVER NOT BECAUSE MISBEHAVIOUR IS UNDER CHECK, BUT BECAUSE GOOD BEHAVIOUR IS IN THEIR DNA.

SETTING AN EXAMPLE

We, in the Bajaj group, have the towering legacy of my grandfather, the late Jamnalal Bajaj, in whom not only our family, but the nation saw an exemplar of both probity and the public dimension of private enterprise. Gandhiji said, "Whenever I wrote of wealthy men becoming trustees of their wealth for their common good, I had Jamnalal in mind." It has been a standard that each one of us has tried to live up to.

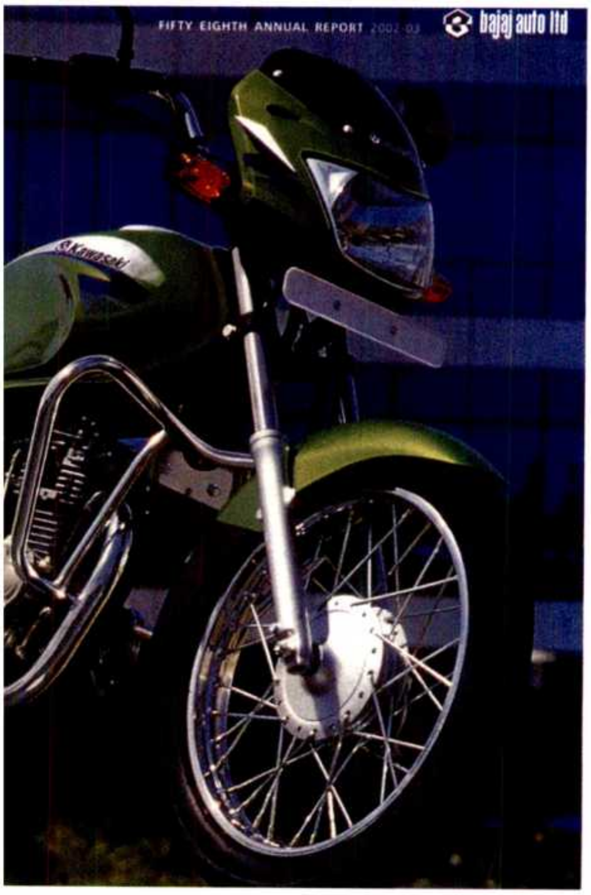
RULES OF THE GAME

Corporate governance is a serious issue for Indian business. If we have to compete, we need to be trustworthy to the investing public, our customers and more importantly, to the employees of our organisations. Because value is, and will be, created when the employees willingly stretch their energies and their intellect for the organisation. And they know the real 'you' much better than shareholders, financial institutions or analysts.



SHOME BASU

A SYSTEM OF CHECKS AND BALANCES THAT FOCUSSES ON ESSENCE AND RESULTS IS CRITICAL TO GOOD CORPORATE GOVERNANCE



Bajaj Auto Annual Report: Getting more transparent

The legal framework for corporate governance is necessary, but not sufficient. It can promote good practices. It is a useful barrier to misbehaviour. But companies deliver not because misbehaviour is under check, but because good behaviour is in their DNA.

ALL IN THE FAMILY

I have often wondered if the idea of *karta* of a family is not the subconscious role model for Indian management. We may or may not understand the public good, but we understand the power and dynamics of the family. And if the family is to progress, it must have a *karta*. This family for an organisation includes its employees, dealers and suppliers. Shareholders bring up the rear. Think of a successful Indian company and you will find a *karta*. In the first generation this is very clear and obvious. In later generations, if a *karta* is found, the company progresses, otherwise not. For obvious reasons I cannot mention names, but just think of the better-known names and judge for yourself.

I have been the CEO of Bajaj Auto for 35 years and many employees too have been with the company for long. In such a context, the inculcation of values tends to be informal. And values with some changes get passed on. For example, a desire to be an independent Indian company is ingrained in our mentality. Also, simplicity is something we have always been comfortable with. We are still running a number of institutions to take forward Gandhiji's ideals of nation-building. This is supported by Bajaj Auto financially and in terms of management time. Few employees are involved with these activities; but the fact that they exist does influence their behaviour and public perception.

The history of corporations worldwide has been of excesses during a period of boom and of reform during a period of bust. In the current cycle, there is a hint of over-reaction. The economy runs on companies and companies need to be able to move decisively and quickly—risk is inherent in the business situation. The CEO-led model for all its failings is the most workable model around. Therefore, one should be careful about over-regulating.

WE'RE BETTER AT IT

Many people do not realise, but Indian corporate governance rules are better than those of even most European countries. For example, Europe may move to mandatory quarterly financial result reporting for all listed companies only in 2005, something we have had for a while. Since 1998, when the Confederation of Indian Industry (CII) corporate governance code was developed, a series of initiatives, including the Securities and Exchange Board of India (SEBI) code and the Naresh Chandra Committee Report, has progressively refined the rules. Infosys is in a league of its own, but even if one looks at Bajaj Auto's Annual Report of, say, 1997-98 and of 2002-03, one gets a clear sense of the distance travelled on transparency, disclosure and improved board processes.

In most matters, self-regulation delivers better results. External transparency, timely disclosure of accurate financial information and a system of checks and balances that focusses on the essence and results, rather than the letter of the Law, are critical to good corporate governance. bt

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BY SUDERSHAN BANERJEE

MANAGING DIRECTOR, DALMIA CONSUMER CARE

GOING RURAL: THE NEW MARKETING MANTRA

I THINK TIME HAS COME FOR INDIAN MARKETERS and managers responsible for market plan insighting to realise that the Indian market and the Indian consumer mind will only be fully understood when the mirror is inverted. What is required is a robust mechanism to view and understand that mindset as it is.

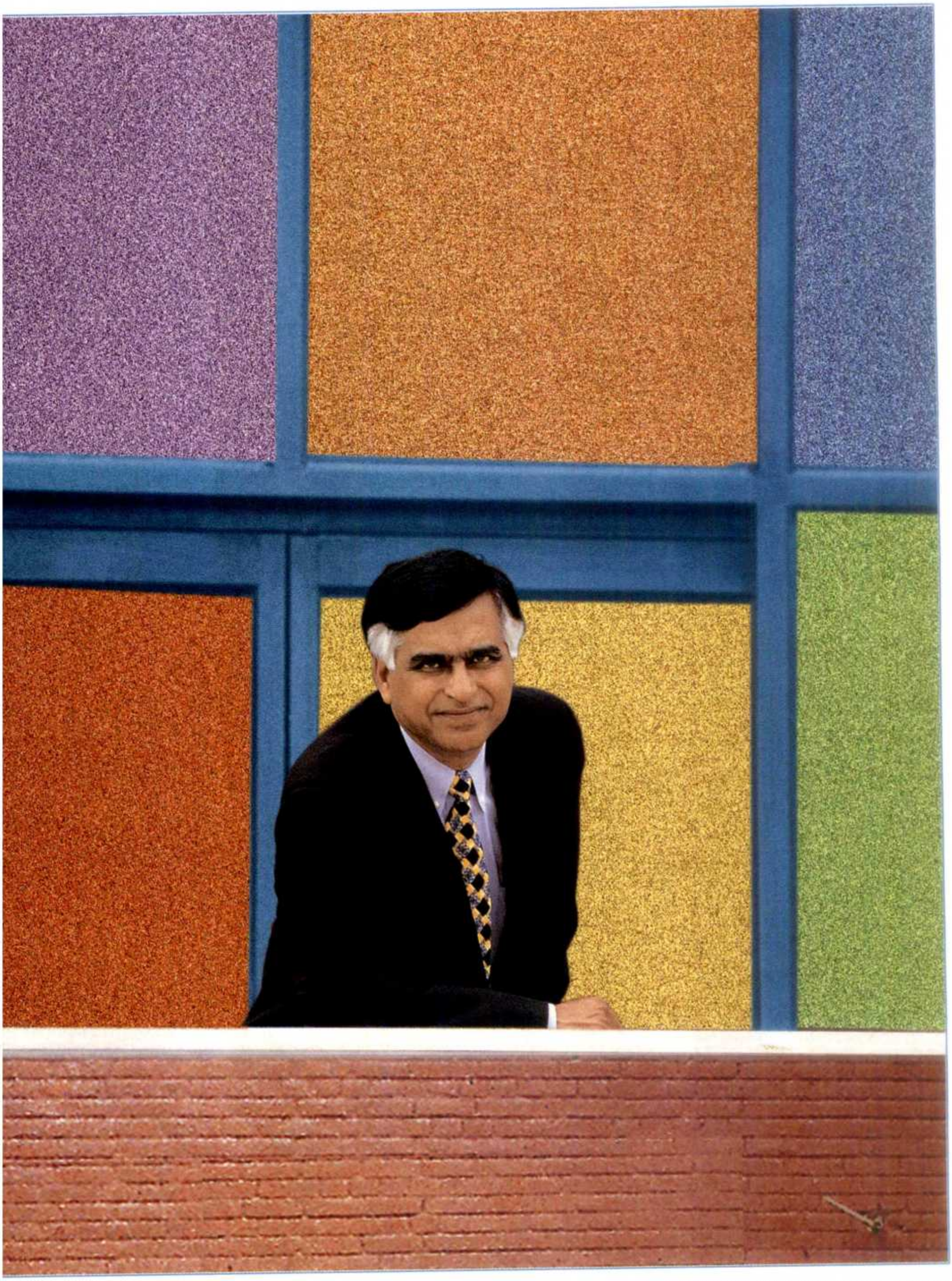
> B*IRI* AND THE RURAL MINDSET GO HAND IN HAND: 80 PER CENT OF THE SMOKERS IN INDIA SMOKE *BIRIS* NOT CIGARETTES. A CONSERVATIVE ESTIMATE REVEALS CONSUMPTION OF 10,800 CRORE BIRI STICKS PER MONTH. AND THIS IS NOT BECAUSE THEY ARE CHEAPER, BUT BECAUSE THEY GO WITH THE RURAL MINDSET.

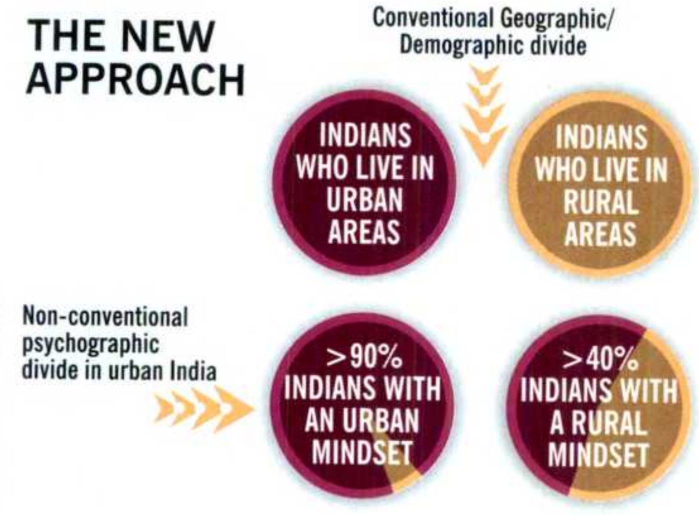
Dalmia Consumer Care (DCC) is a start-up FMCG concept marketing company set up to develop and retail innovative packaged products in the oral gratification space. Its mission: To ensure that each product offered by the company is healthier and safer for human consumption. The first product identified for launch by DCC—a tobacco-free *biri* branded Vardan—is the outcome of unique research conducted by another Dalmia Group company, the 13-year-old Dalmia Centre for Research and Development (DCRD) at Coimbatore.

THE VARDAN EXPERIENCE

Following years of research, a team of dedicated DCRD scientists who researched and developed solutions related to Chronic Obstructive Pulmonary Disease (COPD), asthma, and other mental disorders, developed an amazing formulation—a combination of natural leaves of simple plants abundantly available in India. When mixed and processed in a unique manner and without any chemicals whatsoever, it mimics tobacco smoke. Leading research labs in India and in the US have certified the formulation to be free of tobacco, tobacco-specific nitrosamines, any chemicals, or additives.

By packaging the tobacco-free formulation into a *tendu* leaf *biri*, called Vardan, DCC is offering the world's first non-tobacco alternative that simulates the pleasure of tobacco and mimics the kick without the ills associated with tobacco. Vardan is




THE NEW APPROACH
Conventional Geographic/ Demographic divide
INDIANS WHO LIVE IN URBAN AREAS
INDIANS WHO LIVE IN RURAL AREAS
Non-conventional psychographic divide in urban India
>90% INDIANS WITH AN URBAN MINDSET
>40% INDIANS WITH A RURAL MINDSET

GRAPHICS BY PINAKI PAUL

healthier and safer—a promise of unique value.

UNDERSTANDING THE *BIRI* MARKET

Even as the product was undergoing final development, DCC researched more than 1 lakh consumers across four metros since March 2003, to test acceptance of the novel concept of a non-tobacco *biri*. In the process of conducting the usage and attitude study, DCC garnered amazing understanding on the socio-economic profile of the *biri* smokers, their consumer awareness and knowledge, as also media habits. Clearly, the study reflected the need to respect the knowledge of this large consumer segment.

Research revealed that unlike cigarette smoking, *biri* usage is part of a camaraderie where sharing is the mantra. *Biri* addiction is part of a habit that is perhaps the only indulgence of the consumer in a daily grind of life. Little wonder then that despite awareness of tobacco hazards, there's a "not-me" attitude.

Biri usage ranges from light to strong *biris*, with regional variations that span brands, lengths, shapes (taper) and fill quantity. DCC test marketed every single aspect of the product prior to its launch—including the name, need for a more modern, damp (and tamper) proof attractive plastic packaging; in shop-visibility retailing, and even the press ads, cinema/cable slides, and radio jingle. The result: launch of nine language variants that give Vardan a regional aura around a national brand. And the recent introduction of the smaller packs of 5s (for Rs 1) and 10s (for Rs 2) that has followed the more conventional 20s bundle is based on consumer requirement.

GOING UP THE LEARNING CURVE

The Vardan experience has been enriching, giving DCC window to new marketing paradigms and opportunities. It revealed that the conventional market research of the past that divided consumers along demographic lines—Indians who lived in urban areas versus Indians who lived in rural areas—is very simplistic. In that model, it was believed that urban consumers comprised the elite, more educated and more aware, with a greater purchasing power, and since they lived

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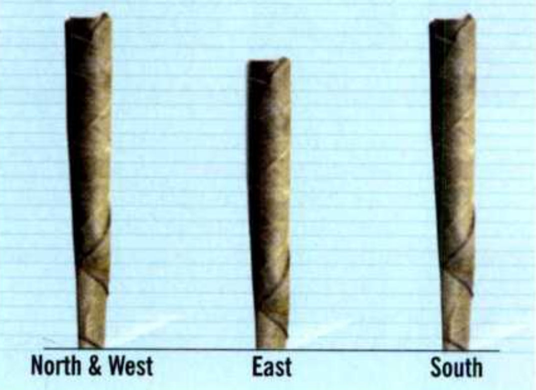
in metros, were easier to reach. Companies vied with each other to design and develop products that either fulfilled their needs or met the aspirations of a burgeoning middle class in metros.

To stay ahead in the race and retain market-share, sales promos via media print, electronic, or even web intensified to a point that they not only saturated the market but increased pressure on margins. Addressing the second demography of Indian consumers in rural areas was considered difficult because here distribution costs limited reach. The rural category was addressed only as a follow-on strategy once urban markets were saturated. Another fallacy that made many a company miss an opportunity. And now we have the new marketing mantra 'Go Rural'.

A DIFFERENT STRATEGY

Did you know that the *bidis* differ in space and size in different regions of the country?



RESEARCH REVEALED THAT UNLIKE CIGARETTE SMOKING, *BIRI* USAGE IS PART OF A CAMARADERIE WHERE SHARING IS THE MANTRA

URBAN CONSUMERS WITH RURAL MINDSET

DCC's new approach is that unlike the vertical demographic divide into urban and rural India, a horizontal psychographic divide based on an understanding of the consumer mindset is more mature. Certainly, it has been very relevant to the DCC experience.

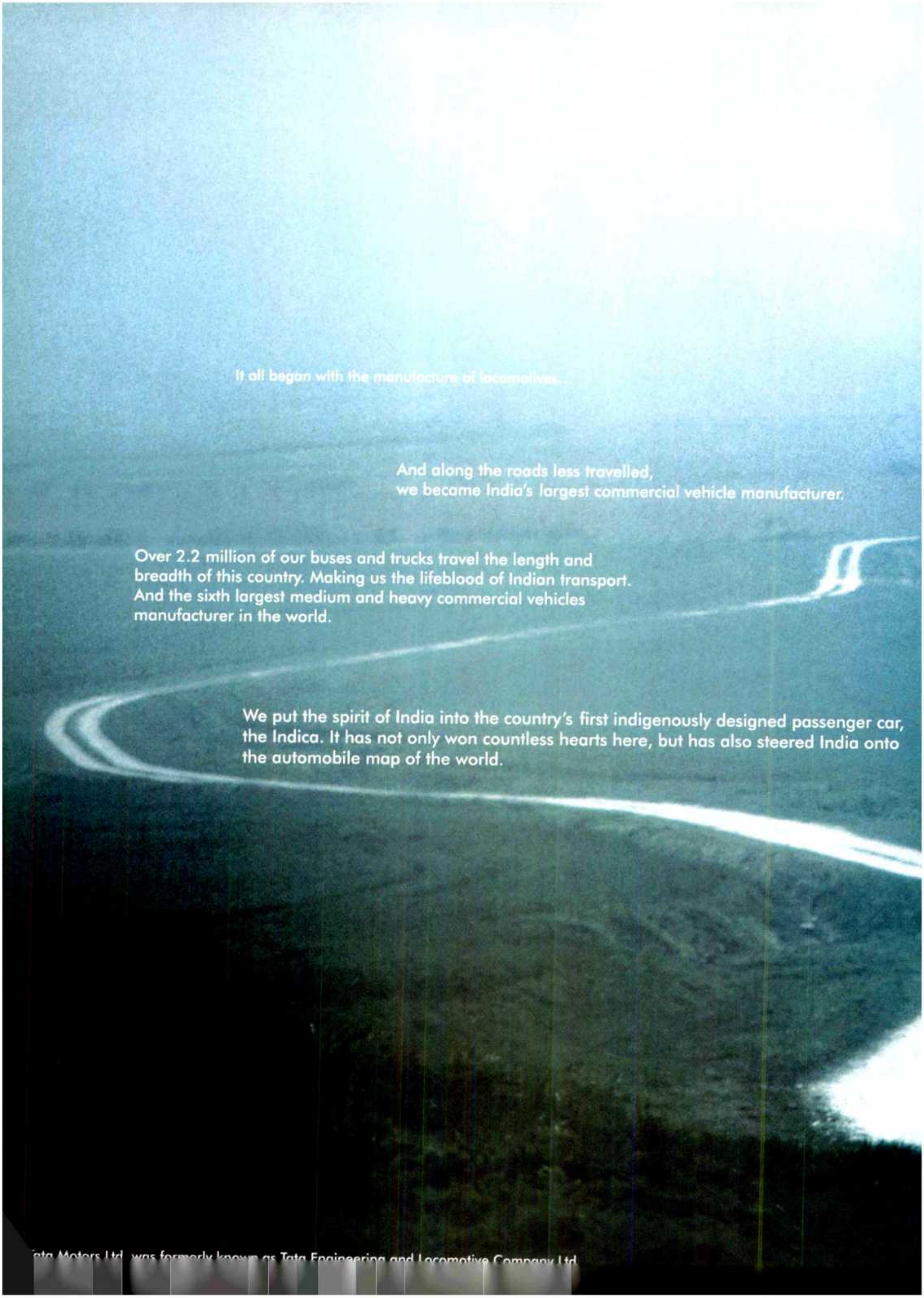
The experience revealed that while more than 90 per cent Indians with an urban mindset reside in urban areas, with a very small percentage in rural areas, rural consumers are not necessarily confined to villages in the hinterlands of India. A significant number, indeed greater than 40 per cent, of 'rural' Indians can be found in urban India itself. These consumers are real—a powerful target audience that cannot to be ignored. It is in understanding and delivering to the needs of this consumer base that companies will be taking their first steps in initiating a process of influencing 60 per cent consumers in rural India too. Logical corollary: Where are these consumers to be found? Who are they? How do companies reach them?

There is a rural India that exists very close by. It is to be found in the 40 per cent, hitherto 'out of reach' village/conglomerate population that lives close to urban cities—this is the rural migrant community that has populated areas in search of daily bread and set up homes in the shanty towns and slums mushrooming in and around cities; these are folks from semi-urban settlements that have come up in areas adjoining urban cities and borders; these are rural folks in what we now term secondary towns—classified as sub-metros, downwards of Class II towns.

These consumers are an evolving group of people, very real and with no fake urban values. They are sons of the soil—fiercely proud of their traditional roots in Indian geography—who prefer *lassi* and *nimboo pani* to colas. They like *sattoo* rusks and *gur chana* biscuits. Their aspirations and dreams for a better future, not only for themselves, but for their children, drives their obsession with education. And it would be a myth to presume that they are illiterate. They have a basic level of education. For marketing companies, equally significant is the fact that their income levels are on the rise.

What they are looking for is to fulfil their dreams—they are willing to put in everything they have to drive the dream to reality. Very simply, they have taken the crucial first step of uprooting themselves from very familiar surroundings for this purpose. This explains the 1990s upsurge in white goods sales in Class II towns. No longer were TVs/CTVs and refrigerators symbolic of urban elite.

The last thing we did, was change the name.



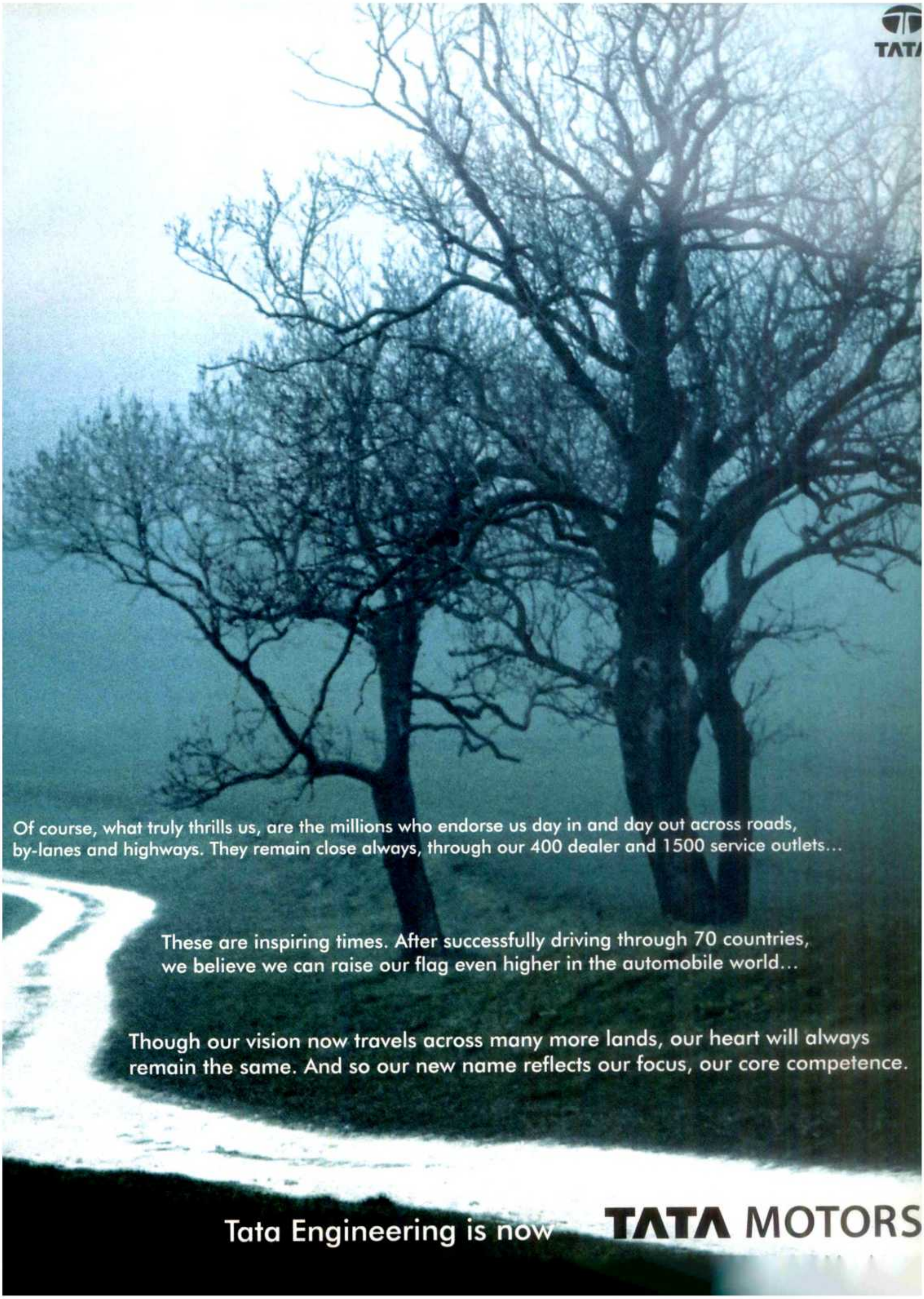
It all began with the manufacture of locomotives...

And along the roads less travelled,
we became India's largest commercial vehicle manufacturer.

Over 2.2 million of our buses and trucks travel the length and breadth of this country. Making us the lifeblood of Indian transport. And the sixth largest medium and heavy commercial vehicles manufacturer in the world.

We put the spirit of India into the country's first indigenously designed passenger car, the Indica. It has not only won countless hearts here, but has also steered India onto the automobile map of the world.

Tata Motors Ltd. was formerly known as Tata Engineering and Locomotive Company Ltd.



Of course, what truly thrills us, are the millions who endorse us day in and day out across roads, by-lanes and highways. They remain close always, through our 400 dealer and 1500 service outlets...

These are inspiring times. After successfully driving through 70 countries, we believe we can raise our flag even higher in the automobile world...

Though our vision now travels across many more lands, our heart will always remain the same. And so our new name reflects our focus, our core competence.

Tata Engineering is now **TATA** MOTORS

More critical, however, was DCC understanding that these consumers are not enamoured by fancy packaged/branded goods, speed, or convenience. What clicks with this segment is a product-plus. Perhaps this explains the matching market upsurge in creation of fakes and copies—close to originals. Look-alikes abound and are available at half the price of the original. For example, Laks vs Lays; Parlaji vs Parle; Arial vs Ariel.

Here comes in another market paradigm: In an environment where the immediate/daily requirement takes precedence in purchase decision because disposable income at hand is so limited, competition needs to cut across product categories in the war to grab consumer attention. The critical factor is to offer value for money. Products must not only be affordable, but also must be available at the point of need—being fulfilled, for instance, with smaller pack sizes at new price points.

RURBANS ARE INDIAN CONSUMERS WITH A RURAL MINDSET LIVING IN URBAN CONGLOMERATES. THIS IS A MINDSET LITTLE RESEARCHED AND UNDERSTOOD

For people with a rural perception real value for money is important, not just a smaller pack size. They map the values very carefully. In packaging, for instance, its functional use/re-use is critical. Similarly, unit price is critical, but not as a rule. Economies of scale are relevant in bulk purchase of foods or edibles. The focus is clearly on not cheap but on VFM. There is a need to flash the price upfront because of the potential loss of face involved in asking.

वरदान
VARDAN
तम्बाकू

How can these consumers be reached? Only about a third of the outlets in these areas are reached directly by FMCG distribution networks. There is a huge potential here. The segment has a high purchasing power. Here is a literate consumer, versed in languages, hungry to learn. Conventional language print media works and high ownership levels of TV and radio provide an opportunity to exploit share of mind.

Research showed that the *biri* and the rural mindset go hand in hand: 80 per cent of the smokers in India smoke *biris* not cigarettes. A conservative estimate reveals consumption of 10,800 crore *biri* sticks per month—15 crore per hour. And this is not just because they are cheaper, but because they go with the rural mindset.

Local cinema halls, village *haats* and *melas* break the monotony of the daily grind and here is another opportunity. The *Kumbh mela*, for instance, today is waiting to be fully exploited. DCC is deploying promotional tools like street plays, audio visual presentations, video clippings, cluster communication including children mentor programming, outreach programmes for women folk in communities, industrial selling, etc., to continuously touch tobacco *biri* users and impress upon them the importance of switching to a non-tobacco *biri*.

To conclude, DCC market research experience outlines the potential of a new consumer segment close to home. "Rurban" is a new Indian marketing jargon DCC has coined for this segment. Rurbans are Indian consumers with a rural mindset, but living in urban conglomerates. This is a mindset little researched and understood. DCC has invested in understanding the *biri* consumer hugely impacted on account of a dependence that cannot be given up—the consumer does not have adequate income, is less aware, has little or no means of adequate healthcare intervention and is left to suffer or die because there is no alternative he has recourse to.

DCC is committed to servicing millions of these rurban consumers in shanty towns and slums in and around the major metros with the same level of dignity offered to urban consumers. By 2005, DCC will reach out to them through 6 lakh outlets in 1,250 towns and it would not have even touched the tip of the iceberg.

For DCC, rurban is the real marketing mantra—not simply going rural.

THE HUTTI GOLD MINES COMPANY LTD

GOLD

THE INVALUABLE

Gold, the precious yellow metal, was referred to as aurum (shining dawn) by the Romans. Its history is steeped in antiquity; mention of the metal is made in the Bible and Rigveda. Mankind has valued the metal from time immemorial for its intrinsic worth and beauty when used as jewellery. Gold has been treated as an instrument of investment too.

By the end of 2001 it is estimated that 1,40,000 tonnes of gold has been mined. Gold generally occurs in its native form, in a small way as compounds and some times locked up in sulfidic ores; silver, copper are the other major metals minerologically associated with gold.

As for physical properties it is highly maleable and ductible possessing a melting point of 1063 degree centigrade but with a high specific gravity of 19.3; gold is mostly inert and considered to be the noblest of metallic elements. A strong mixture of hydrochloric acid and nitric acid, aqua regia, however, dissolves gold.

The production of gold in the world has crossed 2500 tonnes per year now. This constitutes roughly 70% of the gold demand in an year. Out of this, approximately two-thirds are produced in South Africa and remaining in Canada, the US, Australia, the Russia, China, India and others. India which records the highest demand for gold of about 750 to 800 tonnes, produces about 3 tonnes per year in the Hutti Gold Mines, Karnataka.

Gold workings are known to have existed in and around Hutti. In the year 1887, gold mining was undertaken by "Hyderabad (Deccan) Company" for the Nizam of Hyderabad. The Hutti village was once part of the Gurugunta Samsthan, consisting of about 43 villages and the rulers of the Samsthan had given rights to the Government of Nizam of Hyderabad to take up mining activities. Due to paucity of materials and funds, which was mainly attributable to World War I, the mine was closed down in 1920. In the year 1938, detailed exploration by geological and geophysical surveys, diamond drilling was conducted, leading to rediscovery of gold-bearing reefs. Later, 'The Hyderabad Gold Mines Company Limited' was incorporated in July 1947. The then Government of Hyderabad held 98 per cent of the shares with 2 per cent participation by the public. Consequent to the reorganization of States in the year 1956, the Company was transferred to then Mysore State (now Karnataka State) and the name of the Company was changed as 'The Hutti Gold Mines Company Limited'. The Company presently employs about 4,500 people and is making profits. Gold prospecting work is now opened to the private sector too and many companies are now engaged in the task of finding gold ore.

In Hutti the gold is mined from nine gold bearing rock formations (reefs). The gold bearing rocks are blasted at a depth of about 750-800 meters below the earth, the resultant ore is hoisted to the surface and subjected to comminution to reduce its size to below 75 microns (a micron being one millionth of a metre). The size-controlled ore is then reached in sodium cyanide solution at pH level of 10 for about 36 hours to free gold. This then is exposed to activated carbon (CIP technology). The carbon adsorbs gold from solution. The carbon is then treated with a mixture of sodium hydroxide and cyanide at pH 13 at about 95° Centigrade for about three days (elution process) and subjected to electrowinning to extract gold. The cathode, steel wool, is digested with hydrochloric acid when all base metals dissolve leaving gold and silver as precipitates. The precipitates are smelted at over 1100° Centigrade to extract gold of about 875 to 916 fineness (purity) and the balance silver.

The purity of gold is measured in parts per 1000. However, the carat was the earlier measure of purity of gold with 24 carat representing pure gold and 18 carat representing 75% gold alloyed with silver and copper, normally. Gold prices are determined as per transactions in London Metal Exchange (LME) and the New York Exchange. The present prevailing price of gold is about $ 350/troy oz (1 troy oz =31.1035 grams). The price is dictated by the relative strengths of strong currencies like dollar and the perception of the market about returns in other investments like bonds, shares, etc.

The Indian gold market transactions, primarily of jewellery, is stated to be of Rs.40,000 crores in size per annum. The jewellery bought and sold are mainly in unorganised sector; the purity of gold contained in the jewellery has been a concern for consumers. However, now the leading jewellery producers have started "hall-marking" of gold where the purity / fineness of gold is recorded in the body of the article, as per the standards set up by BIS (Bureau of Indian Standards). This trend is likely to become universal.

The gold market at present is buoyant. People have reinforced their faith in gold as a strong investment vehicle - for both the financial wizard and the common villager; that is the versatility of gold.

V. Madhu, IAS, Managing Director, HGML

The Hutti Gold Mines Company Limited: Regd. Office: 6/13 Gurappa Avenue, Primrose Road Cross, Bangalore 560 025
e-mail: hgml@vsnl.com

BY AJAI CHOWDHRY

CHAIRMAN & CEO, HCL INFOSYSTEMS

LEADERSHIP OF IDEAS

> *"Just as energy is the basis of life itself, and ideas the source of innovation, so is innovation the vital spark of all human change, improvement and progress."*
>
> **Theodore Levitt, Marketing Guru**

I could not agree more. Man has always been inventing, innovating, and finding ways to improve the quality of life. The axiom 'change or be left behind' is truer today than ever before. It is not enough to keep up with the times; you have to be ahead of them. One has to anticipate trends, and act without delay. That calls for innovation.

> TOMORROW'S GREAT BENEFICIARIES OF CHANGE WILL BE THE FAST LEARNERS, THE AGILE MOVERS—THOSE INNOVATIVE COMPANIES THAT ARE ABLE TO ANTICIPATE CHANGES EARLIER THAN OTHERS AND TAKE ACTIVE MEASURES TO STAY AHEAD.

It not only calls for a thorough understanding of markets, but also of potential customers and opportunities for improvement. Just as much effective innovation depends on organisational competencies and disciplined management processes, it also depends on people. People who dare to dream; people looking for ways to do things differently and better; people trying to understand how customers could use products they produce. That makes innovation a decisive leadership issue.

FROM THE BEGINNING

When we started Hindustan Computers Limited in 1976, we were a bunch of young guys who had nothing but the belief that IT was where the future lay. We did not even have the capital required to set up the company. So, to begin with, we pooled whatever capital we could raise and started a little calculator marketing company called Microcomp. We then forecasted calculators becoming an essential tool for students and professionals. Within a year, we had changed the landscape of the calculator business in India, besides earning enough to start making computers. Today, less than 30 years later, HCL Infosystems is the only company in India to have sold 50,000 PCs in a quarter.

It is often believed that leadership and success comes at a high price of risk. Speculators thrive on risks. But leaders and entrepreneurs committed to building long-term businesses are not gamblers. They are obsessed with improvement—improvement in terms of developing new products, sales tools, markets, processes, services, human resource practices—to give them that edge over the rest.

SHOME BASU

IT IS NOT ENOUGH TO KEEP UP WITH THE TIMES; YOU HAVE TO BE AHEAD OF THEM. AND THAT CALLS FOR A CULTURE OF INNOVATION

They do not bet their company and wealth on do or die projects. Those who take that approach run the risk of being termed irresponsible or ignorant. The key to successful business growth lies in innovation, in constant evolution. In 1996, HCL started retail selling when no one had heard of it and today, many IT businesses thrive on retail.

Innovators set benchmarks in more ways than one. They not only improve on existing products and services, but also create new markets. When no one realised its potential, we brought UNIX and CAD to India, opening up an additional business avenue. Similarly, over a decade ago, we dared to bring PCs out of hi-tech offices and into people's homes, and thus, the Beanstalk brand of Home PCs was born. Innovation brings with it its own sweet rewards.

INNOVATION IS THE KEY

But in the last few decades, it is not just the development, but also the pace of it that has been remarkable. Information technology has had a key role to play in all this. Tools like computers, mobile phones, electronic appliances and the internet—innovations that have so fundamentally changed our lives—have advanced by leaps and bounds in a relatively short span of time. In today's world, innovation is not just about what you develop, but also how fast you come up with it. Change will appear out of nowhere, and it will appear uncomfortably fast. The great beneficiaries of this will be the fast learners, the agile movers, the innovative companies that see changes early and jump ahead of them.

However, innovation cannot stay limited to just the leadership of the organisation. It has to become every employee's mantra. Quoting Einstein: "It is a very grave mistake to think that the enjoyment of seeing and searching can be promoted by means of coercion and a sense of duty." It is about making them believe, providing an environment in which their creativity can find outlets and opportunities 24 hours a day, seven days a week, without mitigating risk for business as a whole. This is how the fractal growth at HCL set in and saw us grow in leaps and bounds.

It is imperative that you do not allow a belief to seep into your team leaders that quality control and cost alone can improve business growth and profitability. Make sure these are balanced with innovation and growth. Those who sell in your markets are likely to be your richest source of innovation. They are the ones serving your valuable customers; outrunning your competitor. Set in place a user-friendly, easy knowledge management system for gathering all that experience and market intelligence, because it is this knowledge and learnings that will form the foundation for your company to grow.

From this will come the opportunity to spot the problems that need to be addressed, that no one else provides solutions for and therein you would have identified an opportunity to innovate. Even though many innovations come from a deeper level of customer and market understanding, they also go beyond what current customers say they need. They solve problems that even customers don't realise they have or did not know could be solved. For example, in the early eighties, if we had done a demand analysis for the internet, the results would have been extremely disappointing.

UNDERSTANDING CHANGE

But innovation doesn't stop here. IT, and any other field for that matter, is all about change, challenging your intellect, and your capability to consistently come back with innovative solutions. The real challenge facing IT in India today is that of relevance. The innovations we all usually talk about are no doubt important, but we have to stop and ask ourselves one question: "How does this affect the common man?" This is the question that propelled HCL to reach out to rural markets. In a country like ours, real growth will happen once the common man is the focus of our innovation.

Innovation for the sake of innovation is a battle without a cause. All innovation must lead to relevant, contextual and sustainable change. A company's progress and a nation's progress is linked with the common man's growth. Innovation is to transform the value of somebody's life. That is what will hopefully drive the Indian IT industry. bt

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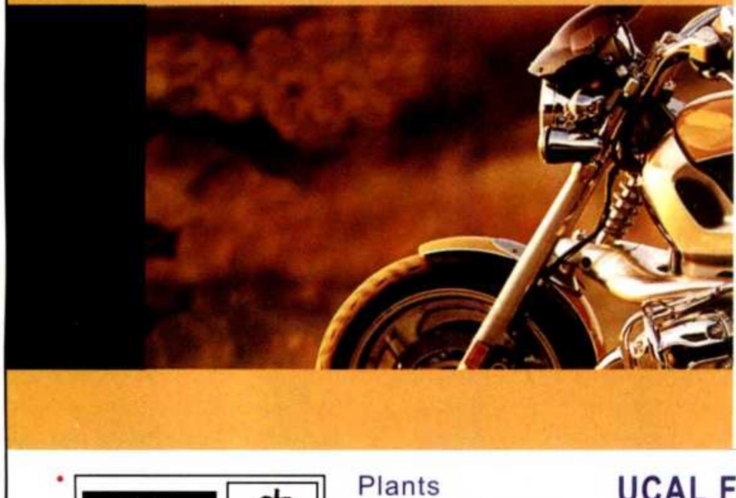

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BT THE NEW PARADIGM: ETHICS

BY ADI GODREJ

CHAIRMAN, THE GODREJ GROUP

CORPORATE GOVERNANCE AT GODREJ

WE ARE A 106-YEAR-OLD, LARGELY family-owned group that operates in a variety of businesses. Corporate governance has many dimensions in our group. I will elaborate on three dimensions in this column.

CORPORATE GOVERNANCE AND VALUES

At Godrej, we believe that corporate governance should promote the long term good of the company or the business, not necessarily of just the shareholders. It is well understood that neglecting or bypassing the interests of stakeholders like shareholders, employees, vendors, customers, consumers, the government or society at large, is likely to adversely affect the long term interests of the company.

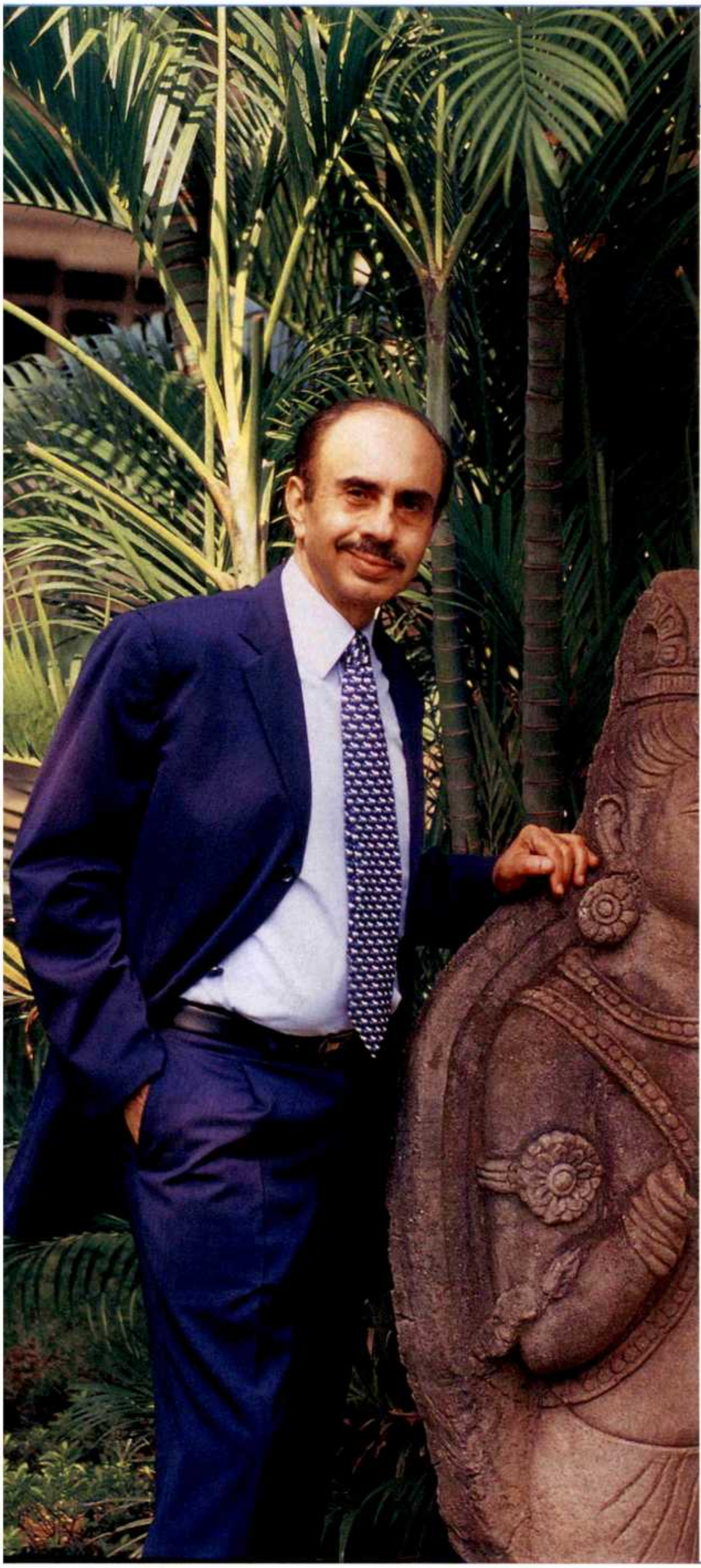
Corporate governance is strongly driven by our values such as quality, customer orientation, commitment, discipline, integrity, learning, transparency, respect, teamwork and trust. This value framework is an unwritten constitution of corporate governance and shows us the path we must follow for continued success.

CORPORATE GOVERNANCE AND PERFORMANCE

We believe that good corporate governance must include the framework of strong performance orientation. It needs to incorporate leadership and management imperatives that can lead to strong financial and strategic performance.

I would like to describe some of the initiatives and tools we use to promote the performance culture. Economic value added (EVA)—profits after the cost of capital used is deducted—is used as our main financial metric. A large number of our people are on a performance-linked variable remuneration system. Variable remuneration forms a large part of our total remuneration package. There is no ceiling to the variable remuneration, which is linked to EVA improvement in

> CORPORATE GOVERNANCE AT GODREJ IS STRONGLY DRIVEN BY VALUES SUCH AS QUALITY, CUSTOMER ORIENTATION, COMMITMENT, DISCIPLINE, INTEGRITY, LEARNING, TRANSPARENCY, RESPECT, TEAMWORK AND TRUST. THIS VALUE FRAMEWORK IS AN UNWRITTEN CONSTITUTION.



VIVAN MEHRA

each business. To promote a long-term viewpoint, not all the variable remuneration is paid out in the year it is earned. Some of it is held in a notional bank.

The next year, the bonus earned is added to the bank and a portion of that sum is paid out, and so on. The variable remuneration is modified by applying an individual performance factor based on the person's individual performance. This is gauged through a balanced scorecard approach. In each of our businesses, we periodically form two teams of young managers who spend three or four months interacting with a lot of people both inside and outside the organisation. They collect data, study developments and then, as a team, work out a strategic plan for their business for the next three years. The only people the two teams do not talk to is each other, as we look for two independent plans. We call the two teams the red team and the blue team, then present their plans to the senior management of the business. The senior management, together with the two teams then form a larger team to finalise a strategic plan for the business using the best ideas of both the teams. This exercise gives us excellent bottom-up feedback that is extremely useful (strategic planning in India, unfortunately, tends to be too top-down). It also an excellent development tool for the young managers involved.

We have constituted a Young Executive Board (YEB) of about 10 young men and women from various functions and businesses in the group. They are in their

GOOD CORPORATE GOVERNANCE PROMOTES THE LONG-TERM GOOD OF THE COMPANY, NOT JUST OF THE SHAREHOLDERS

twenties or early thirties. They have access to all the information that senior boards do. They look at issues such as strategy, corporate governance, and human resource development that the board looks at and report their findings once a quarter to the Group Management Committee that comprises the CEOs of the businesses. Membership of the YEB is rotated every two years. This provides for useful bottom-up feedback and is a strong development opportunity for grooming young managers. We have a think tank whose seven members are senior managers drawn from various group companies and functions. The task of the think tank is to look at developments in fields such as science, technology, IT, management, demography, economics and geo-politics that could be threats or opportunities for the group as a whole. The think tank does not concern itself with specific developments in each business. The membership of the think tank is for a period of two years and is also subject to rotation.

As the Chairman, I regularly meet groups of 10-12 managers over tea for about one-to-two hours. At the Chairman's tea, we have free wheeling discussions on the group's progress, on possible areas for improvement, and on what we need to do differently. These tea sessions provide me with very useful feedback. The CEOs of our various companies have similar sessions with managers and officers in their respective businesses. These, too, have been found to be very useful.

Another tool we employ quite frequently is to send groups of 10-15 people, who constitute teams at the workplace, for a three-day Outbound Programme. This programme is typically held in a mountain location where the teams live in tents. The accommodation and board is clean but spartan and frugal. The programme is facilitated by expert consultants. During the day, most of the time is spent in challenging physical games and tasks, which clearly bring out the immense value of close teamwork and the value of taking on stretch targets after careful planning and preparation. In the evenings, the expert facilitators help the group discuss various interpersonal issues that allow the team to introspect and to understand and appreciate each other much better.

CORPORATE GOVERNANCE AND THE BOARD

The third important dimension of corporate governance in Godrej is the Board of Directors. We are a mainly private group, so I will indicate what we do in corporate governance from the board point of view in our main publicly listed company, Godrej Consumer Products Ltd (GCPL).

GCPL has a strong board. Half the board members are independent directors, who are professionals of distinction in their respective fields. Professor Bala Balachandran is a senior faculty member at the famous Kellogg Management School of Northwestern University and a world-renowned expert in strategic cost accounting. Rama Bijapurkar is one of India's foremost consultants in marketing and market research. She has worked previously in Lintas and McKinsey. Bharat Doshi, the Director (Finance), Mahindra and Mahindra, is a chartered accountant. Bharat chairs the GCPL Audit Committee. Anupam Puri was the head of McKinsey in India and is a strategy expert. Anupam heads our HRD Committee.

These independent directors are well compensated by Indian standards and are expected to spend quality time with the company. Our board meetings last at least half a day. We have a two day off-site board meeting devoted to strategic issues, once a year. The board inspires and ensures strong corporate governance, strategic posture and performance orientation in the company. Godrej Consumer Products was the first company in the country to be rated on both corporate governance and stakeholder value creation. ICRA has assigned a 'CGR2' rating to the corporate governance practices and a 'SVG2' rating to the stakeholder value and governance practices, signifying a high level of assurance.

I would like to conclude by emphasising that at our group, we feel that corporate governance is above all, about both—doing things right and doing the right thing.

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WIND ENERGY: THE CLEAN NATURAL POWER FOR INDIA

IMAGEADS

BY RAJESH HUKKU

CHAIRMAN AND MANAGING DIRECTOR, I-FLEX

THE SOFTWARE PRODUCT PUSH

THE SUCCESS STORY OF THE SOFTWARE SERVICES sector has secured India a place in the international hall of fame. According to the Strategic Review 2002 of the IT industry in India by the National Association of Software and Service Companies (NASSCOM), the sectoral growth zoomed from $1.73 billion (Rs 7,958 crore) in 1994-95 to around $13.51 billion (Rs 62,146 crore) in 2001-02. This annual growth of over 50 per cent has been achieved through the twin advantages of a high level of service quality and competitive pricing.

But, in an increasingly competitive world today, there are several countries such as China that have geared up their capabilities to pose a serious threat to the Indian software services advantage. Sealing this success for the future needs, in addition to the strategies for sustained growth in the services area, is a completely new approach—building a successful 'Made in India' brand for innovative software products.

> IRRESPECTIVE OF WHETHER THE PRODUCT APPLIES TO A VERTICAL SEGMENT OR CUTS ACROSS SECTORS, SERVES THE CORPORATE CUSTOMER OR A WIDE CONSUMER MARKET, THE GOLDEN RULE REMAINS THE SAME: IT MUST SOLVE A PROBLEM THAT CUSTOMERS ARE GRAPPLING WITH.

LOOKING BEYOND

The present India brand is about capable software engineers, but does not establish credibility in innovative product development. To build a dominant national brand of software products requires what NASSCOM terms the 'killer combination' of marrying software skills with domain expertise. As one who has walked this path, I might also add that it needs conviction, commitment, the right attitude, and a hard-nosed strategy.

The product lane on the software highway is different from that occupied by services. Steering successfully on this path needs a clear roadmap for each business and the industry collectively.

The very first step is to understand the type of products to develop. It is imperative that software products developed for the global market do not emerge merely out of technological advancements, but meet a current and future need of the customer.

Irrespective of whether the product applies to a vertical segment or cuts across sectors, serves the corporate customer or a wide consumer market, the golden rule remains the same: it must solve a problem that customers are grappling with.

This calls for us to look beyond the knowledge of software and confines of IT, to understand the needs that our products would fulfil. This needs to be in-depth. At i-flex we walk this talk. We have a large number of functional experts working in-house to provide insight into the intricacies of the financial services industry.

VIVAN MEHRA

THINGS TO DO

Once the product architecture and functionality has been crystallised, it is necessary to benchmark the quality of product across a few dimensions. First, the product must be developed on a technology that is benchmarked with the best of breed systems. Secondly, it must be scalable to meet customer requirements. Next, the product must pass a simple acid test: does it make the life of the user any easier? Does it also help reduce risk and increase returns? And finally, the product brand must evoke trust as not just dream architecture, but also one that is value for money.

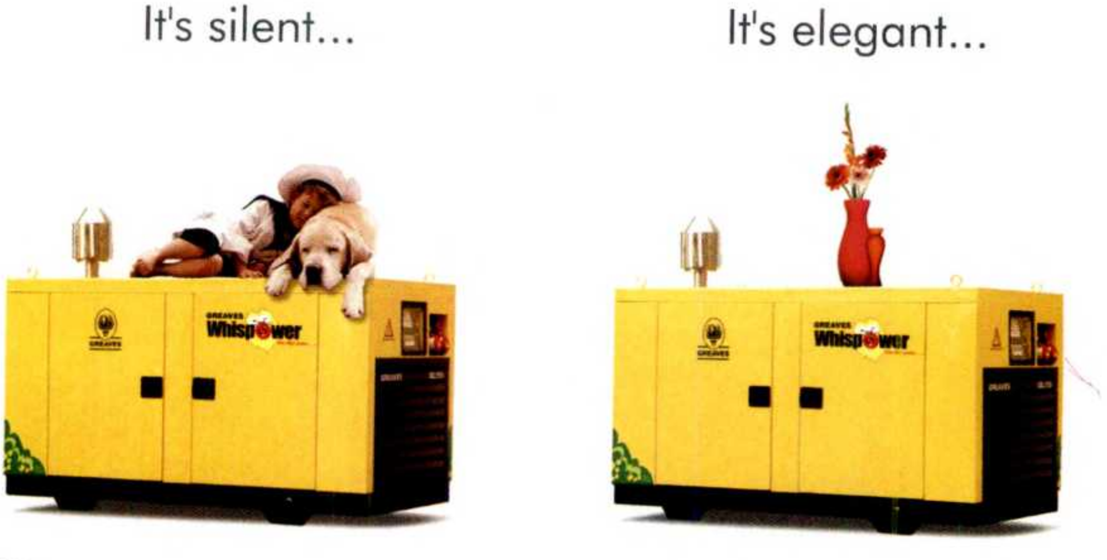
Even as we set our sights outwards, it is worthwhile exploring markets with lower barriers to showcase our strength. Ensuring a superior product is merely the beginning. It is equally important to build capability and the network to support the product. The launch of a product in any new market must be accompanied with a sound distribution and support strategy for the region. As markets open to your products, the absence of a sound plan to support ongoing customer requirements can lead to a premature death of the product.

Selling a product in the global market is dramatically different from domestic marketing.

At the outset, the value of local marketing alliances needs to be recognised. Rather than trying to go the entire distance alone, it would be wise to carefully select local partners who are already well versed with the local culture and behaviour in the respective target markets. A new product entry can ride on the trust that they have built in the market over the years.

Now comes the most challenging part. Marketing of global products needs a substantial investment in branding. Branding the product involves building credibility in the market. A sound product cannot hold its own until its story is told and experienced consistently by the target audience. It involves engagement with direct and extended stakeholders, such as customers, partners, analysts, and the media. It involves an integrated outreach programme going much beyond building brand identity through advertising.

Once you have gained a foothold in the market, you've got into the game. But to stay in the game,



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you've got to keep the brand alive. This implies sustained investment in research and development to ensure that the product stays relevant through changing technology and industry dynamics.

The products business model is characterised by continuing investments. Not only does the development of a product involve continued investment through the gestation period, the subsequent investment in the support system and branding requires a long-term financial commitment. Yet, once this business turns the corner, it reaps exponential growth in profitability.

We, in India, have an added advantage with the availability of better, faster, and inexpensive research costs. This can help us stay ahead of the game. In fact, if we leverage this cost saving through cheaper R&D to customer advantage, it can enable further inroads into the market.

CUSTOMER IS KING

The products business is built on a 'customers for life' and 'people for life' model. In this business, it is critical to ensure customer satisfaction through continuous support. A satisfied customer is a ready prospect for enhancements in the product and is also one of our most effective points of referral.

Internally, with the entire product development effort dependent on continued intellectual capital, our core values need to revolve around building pride and loyalty to the firm.

Finally, in this investment intensive model, it is critical to spread market risk by going global in the literal sense. As against a concentration on the US or European markets, at i-flex we have our footprint across 93 countries as we firmly believe it minimises impact of localised political or economic uncertainties on business.

The prescription for development and marketing of software products may seem like a long haul, but it is possible and has the potential of stamping long-term success for the Indian software industry. It might take another decade, but I am convinced that we, as an industry, can make this transition. It might be pertinent here to recall that one of the global czars in this field, Microsoft, began as a $1 million (Rs 4.6 crore) company in the 1970s.

We can do it and this is the only way to a giant leap forward. bt

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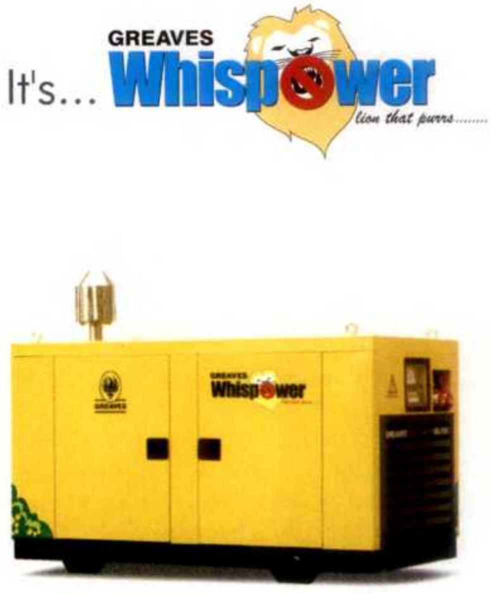

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Pratisaad 03\209

BY JAMSHED J. IRANI

DIRECTOR, TATA SONS & FORMER MD, TATA STEEL

PROFITS FOR ALL

THE ONSET OF ECONOMIC LIBERALISATION AFTER 1991 has engineered the expected turbulence in the hitherto protected Indian market. The customer is now rightfully "king" and meeting his demands in a competitive environment has made the task of producers far more complex. While the quality of products and services has taken centrestage, geographical boundaries have lost their relevance. Thus, today, it is not enough for a business to explore and leverage its competitive advantage; more importantly, it must ensure that its value creation is sustainable against global competition.

It is a truism that corporations strive for profitability. But it is equally true that islands of prosperity cannot survive in a sea of poverty. The long-term sustainability of a corporate will be determined by its responsiveness to communities, shareholders, employees, and all its other stakeholders. It follows, therefore, that corporates must believe in and practice ethical business conduct.

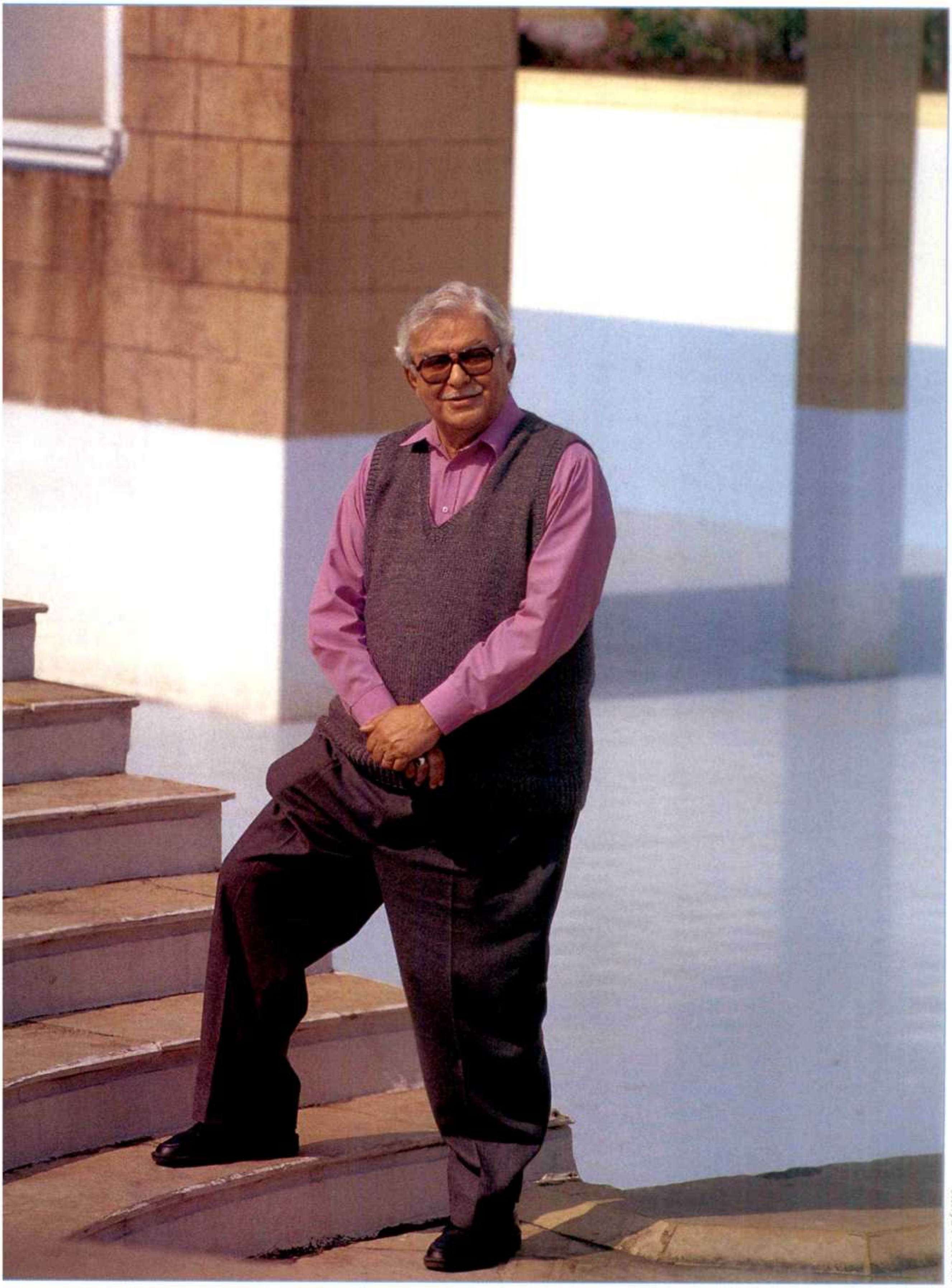
> WITH GEOGRAPHICAL BOUNDARIES LOSING THEIR RELEVANCE AND CONSUMERS GROWING QUALITY CONSCIOUS, IT IS NOT ENOUGH FOR A BUSINESS TO EXPLORE AND LEVERAGE ITS COMPETITIVE EDGE; MORE IMPORTANTLY, IT MUST ENSURE THAT ITS VALUE CREATION IS SUSTAINABLE AGAINST GLOBAL COMPETITION.

The House of Tatas has been guided by the vision of our founder Jamsetji Tata, followed by his son Sir Dorab Tata, our long-time patriarch J.R.D. Tata and by our current Chairman Ratan Tata. The Tata House has generated wealth by leading businesses in various sectors of the Indian economy and then has ploughed back its wealth into society.

As much as nearly 66 per cent of the capital of the group's parent firm, Tata Sons, is held by the group's philanthropic trusts, of which Sir Dorabji Tata Trust and Sir Ratan Tata Trust are the two major ones. These trusts have sponsored and promoted a number of public institutions of national interest, including hospitals, education and research centres, scientific and cultural establishments like the Indian Institute of Science, the Tata Institute of Fundamental Research, the Tata Institute of Social Sciences, to name a few.

Tata Sons' unique corporate structure imbues in the group enterprises the philosophy of corporate social responsibility. The late J.R.D. Tata made this commitment explicit when he said: "Every company has a special continuing responsibility towards the people of the area in which it is located and in which its employees and their families live. In every city, town or village, large or small, there is always need for improvement, for help, for relief, for leadership and for guidance. I suggest that the most significant contribution organised industry can make is by identifying itself with the life and problems of the people of the community to which it belongs and by applying its resources, skills and talents, to the extent that it can reasonably spare them to serve and help them."

In recent times, the formation of the Tata Council for Community Initiatives (TCCI), which encourages group companies with technical know-how to work together to devise initiatives to serve the community, has given an additional boost to the group's abiding concern for society.



SANJOY GHOSH

CORPORATIONS STRIVE FOR PROFITABILITY, BUT ISLANDS OF PROSPERITY CANNOT SURVIVE IN A SEA OF POVERTY

Tata Steel has been a pioneer in labour and community welfare since its incorporation in 1907. Today, even as the company stands out as one of the most modern and efficient steel producers in the world, it is equally proud of its record of pioneering many labour policies in India. The eight-hour working day, the establishment of a welfare department, leave with pay—all these measures were introduced by Tata Steel between 1912 and 1920, and became law of the land only later, when they were incorporated in the Factories Act of the Government of India in 1948. Free medical aid, workers' provident fund, and maternity benefits were among other measures, which were introduced first in India by Tata Steel.

The quality of life of the people of Jamshedpur and its environs has been enhanced by over 90 years of the company's efforts in developing the city's infrastructure, housing, medical and civic amenities. On an average, Tata Steel has been spending Rs 35 crore every year for the past decade on social services in areas outside the limits of that part of Jamshedpur where its own workers and their families live—what the company spends on the latter is separate and much higher.

The Tata Steel Rural Development Society (TSRDS), the Tata Football Academy, the Adventure Foundation, the Jubilee Scholarship for Professional Studies are among the company's other social initiatives. The TSRDS has been involved with the Indian Railways' Lifeline Express, a fully-staffed "hospital on wheels" equipped with a modern operation theatre, since 1991. The Lifeline Express provides diagnostic, medical, and surgical treatment for the underprivileged and handicapped in remote corners of the country.

The Tata Relief Committee, anchored by Tata Steel, is a central body of the Tata Group that provides support, both financial and physical, in natural disasters that devastate areas of our country periodically. After the Gujarat earthquake of 2001, Tatas joined in the relief effort in a big way with the Tata Relief Committee overseeing the group's initiatives. It was allocated the area of Bhuj, and within hours, blood and medicines were dispatched there along with medical teams. Later, the Tatas participated in the rehabilitation work; rebuilding schools and other public institutions over a period of 18 months, and spending crores of rupees contributed voluntarily by Tata companies and employees from as far away as Jamshedpur.

The company also believes that a clean and safe environment, both inside and outside the plant, is the key to success. A sizeable percentage of the capital spent on the company's modernisation in the last decade has been directed towards improving pollution control and safety. Outside the plant, Tata Steel had launched a company-wide "Green Millennium" campaign in which more than 1.5 million trees were planted in the city in the three years leading to the new millennium.

Elsewhere, the company has supported the promotion of alternate energy sources, water and soil conservation via watershed development programmes and irrigation extension and social forestry in Jharkhand and Orissa. Tata Steel is also a signatory to the United Nations Global Compact and abides by its principles concerning human rights, labour rights and the environment.

The Tata Group's commitment to social responsibility is ingrained in the behaviour of every individual and group company through the Tata Code of Conduct. Realising that only "what gets measured gets done", appropriate indicators of a company's social responsibility are incorporated in the MD's "Balanced Score Card" in every major Tata company. The commitment to social responsibility is then taken through the company by empowering appropriate individuals down the line. Additionally, corporates such as Tata Steel conduct Social Audits periodically to ascertain the impact of the products, processes and services on society.

It is, thus, that the group companies try to live the philosophy propounded by J.R.D. Tata when he said: "The wealth gathered by Jamsetji Tata and his sons in half a century of industrial pioneering formed but a minute fraction of the amount by which they enriched the nation. The whole of that wealth is held in trust for the people and used exclusively for their benefit. The cycle is thus complete; what came from the people has gone back to the people many times over." bt

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BY ASHOK JHUNJHUNWALA

PROFESSOR, TENET GROUP, IIT-MADRAS

REVITALISING INDIAN CORPORATES

INDIA HAS A LARGE POPULATION. THEREFORE, IT HAS a huge potential consumer base. The key word, however, is "potential". If exploited, it can revitalise the Indian industry and place it among the leaders of the world. If not, it will remain just that—a mere potential.

B Y FOCUSSING ON COST-REDUCTION THROUGH INNOVATION, INDIA INC CAN NOT ONLY TAP THE VAST POTENTIAL OF OUR RURAL MARKETS, BUT EMERGE A LEADER IN THE WORLD BY VIRTUE OF MASTERING THE TECHNOLOGIES INVOLVED.

Over the past decade, the fast-moving consumer goods (FMCG) and consumer durable industry have started addressing this large potential Indian market. The array of choices consumers have been presented with, in categories as diverse as matchboxes and soaps, and colour TVs and mopeds stands testimony to this. In fact, the hype that surrounds our national obsession, cricket, is a striking symbol of the appeal a large potential market has for FMCG and consumer durable companies.

The case of TVs is a classic case in point. Over the last decade, TV sets have been sold to about 100 million homes in India. The key here is to understand how this was possible. The prices of TV sets today range from as low as Rs 1,200 to as high as Rs 40,000. However, it is low-priced television sets that have made the product ubiquitous in Indian homes. If the entry-level TV set available in the market today had been priced at Rs 10,000, there's a good chance that not more than 10-12 million homes would have had it.

The inference, therefore, is that the Indian market is large, but large only at prices affordable to Indian people. What is this affordability? *How They Stack Up* provides a glimpse of the amounts that households in India earn today.

HOW THEY STACK UP

Annual Income (Rs per annum)	No. of households (in millions)
Less than 70,000	**120**
70,000-1,00,000	**30**
1,00,000-2,00,000	**30**
Over 2,00,000	**10**

Targeting households with income higher than Rs 2 lakh a year limits the potential market to 10 million households. However, there are 30 million households with annual income between Rs 1 lakh

H.K. RAJSEKHAR

> **TO TAP THE RURAL MARKET, WE NEED TO SELL PRODUCTS AT A THIRD OF THE PRICES THEY SELL AT IN THE WEST**

and Rs 2 lakh, and another 30 million households with annual income between Rs 70,000 and Rs 1 lakh. Corporates can choose their target market according to the price at which their products are sold.

EXPANDING THE MARKET

In the past, Indian corporates have depended on technology transfers from the West to produce and sell products. Most of these products have a niche market in India. The problem is that general affordability in a country like the US is over five times that in India: $100 would be less than 1 per cent of the annual income of most households in the US. A product sold at this price would address all households in that country. But when brought to India at a price of Rs 10,000, it would be affordable to a maximum of 10 million households, and only if they were willing to spend 5 per cent of their annual income on the product. If the product was available at one-third the price, it could address 70 million households.

In other words, to tap the potential market, Indian industry needs to sell products at a price that is, at the least, a third of comparable prices for a similar product in the West. Now, how do they reach such a price point? Research and development works to reduce cost of goods to expand the market. Once the market is saturated, the R&D focus naturally shifts to the replacement market; and in this market, adding value to the product is more important than cost reduction. The West, therefore, works on innovations targeted at cost reduction only till products are made affordable and saturate the market. From that point, the R&D focus is no longer on cost reduction. After all, we cannot expect expanding the market in India to be the focus of research in the West.

That is why India requires innovations different from those in the West. Local R&D needs to begin where it is left off in the West, as far as the emphasis on cost reduction is concerned. The cost needs to be brought down by a factor of at least two-to-three to tap the potential Indian market. In achieving this, we not only serve a large internal market, but, by virtue of mastering technologies involved, can emerge as the technology leader of the world.

CAN INDIA DO IT?

Is Indian industry capable of such R&D? Most corporates, over the years, have laid little emphasis on technological innovations. Reducing costs by a factor of three would just be unimaginable. Can we do this? Over the past three decades, a large number of engineers, trained in Indian institutes like IITs, have gone abroad. They have entered the R&D departments of corporations in the West and have often been the key to technological innovations that have emerged. In fact, many of them have not just become technology leaders, but business leaders too, demonstrating the all-round capabilities of Indians. Back home, Indian entrepreneurs have done exceptionally well over the last two decades, in design and development work, especially in the telecom and IT sector. Today, the world has begun to view India as a potential design house.

In other words, talent as well as the talent-shaping institutions exist in India. It is Indian corporates that have largely failed to foster the vision of serving the large domestic market and create R&D organisations to deliver such products. How do they begin rectifying the situation?

It is possible for them to build their in-house R&D expertise in partnership with some of the technological institutions in the country. The task is, however, slow and both the companies as well as universities need to learn to work with each other with a goal of developing quality products. This apart, there is another way.

Over the last 20 years, the western experience has shown that large corporations such as Lucent and Nortel often become too big and unwieldy to come up with a series of technological innovations. The employees in these companies often lack the spirit and motivation that drive innovations. Today, the West has found an alternative. Small groups of inspired young engineers leave these companies and start ventures of their own. Backed by venture finance and start-up energy that keeps them going 20 hours a day, they come up with innovations. As soon as something significant is available, the large corporates purchase these ventures. They pay a handsome price for successful

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Pratisaad/03/419

SANJAY PANDYA

Breaking barriers: Televisions are just about everywhere in India, thanks to low-priced models

innovations, but then, they have the capability to harness these innovations towards a large market.

Maybe Indian corporates need to do something similar. As long as they demonstrate the will to go for the large Indian market, and are willing to pay significantly for the technology that would open up this market, there will be enough motivation for young entrepreneurs to create technological innovations. It is true that entrepreneurship is not the name of the game in India yet. But the talent exists. It only needs a few success stories and a bit of nurturing for this to happen.

LOCAL R&D NEEDS TO BEGIN WHERE IT HAS LEFT OFF IN THE WEST, AS FAR AS THE EMPHASIS ON COST REDUCTION IS CONCERNED

To a certain extent, this has happened in the telecom area. Not long back, the infrastructure capital cost required to install a telephone line in India, was Rs 30,000. This cost mirrored the $600-plus it cost in the West. With such expenditure, it was possible to connect barely a fraction of Indian homes. Indian operators and technologists have worked hard and have brought down the cost to about Rs 16,000 per line and are aiming to get to hit less than Rs 10,000 per line in the next few years. With this, it would be possible to profitably connect half of all the Indian homes and target 200 million connections in India.

THE HURDLES

Is this do-able in other sectors? Maybe. The first bottleneck is that Indian corporates still do not believe in the large internal market. The second problem is that these corporates are not willing to pay a handsome price even for a successful innovation. Finally, they have not shaped their organisations to harness these technological innovations and deliver to the large market.

But these are all issues of mindset. If the leaders of India Inc. decide to do so, there is no reason why these bottlenecks cannot be overcome. There is no dearth of management and technological talent in India. If Indian corporates have to become highly successful, the potential internal market in the country and the technological and entrepreneurial capabilities resident in its citizens present a great opportunity. The key is to get going. bt

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BY MEENA KAUSHIK

MANAGING DIRECTOR, QUANTUM MARKET RESEARCH, INDIA

ADVERTISING AND THE CONSUMER

ADVERTISING IS ONE OF THE MOST important cultural sign systems that reflect and mould our lives. It is ubiquitous and an inevitable part of everyone's life. Even if one does not read the newspaper or watch television, it is impossible to escape the advertising images that pervade our surroundings via hoardings, wall paintings, point of purchase material, or even the radio. Cutting across all media, but limited to none, advertising forms a vast superstructure with an autonomous existence and an immense influence.

THE RESURGENCE OF FAMILY VALUES AND EMPHASIS ON SOCIAL INTERDEPENDENCE ARE REFLECTED IN THE ARCHETYPAL IMAGES AND IDENTITY OF THE INDIAN WOMAN BEING PROJECTED IN ADVERTISING. THE TEMPTRESS OF THE 90S GIVES WAY TO THE WOMAN WHO IS SEEKING A BALANCE BETWEEN TRADITION AND MODERNITY.

SEARCH FOR IDENTITY

The relationship between advertising and the Indian audience has always been a complex one. At one level, it projects an idealised reality and an identity for both the product and the consumer. At another level, it reflects the deeper archetypal identities that are culturally pervasive. Akin to cinema, advertising creates a link between a consumer's search for identity and the archetypal images that are pervasive in that culture.

The advertising story, myth or creative expression is the syntagma, or grammatical chain, in which the process of identity creation is located.

In effect, every consumer enters a communication discourse not just to buy a product or learn about its unique values, but also to create a transient moment of identity. Thus, consumers do not just passively receive advertising. They enter a communication discourse that is completed when a moment of identity is created and the consumer recognises herself as "this is me" or "I am".

THE WOMAN OF SUBSTANCE

A review of advertising beamed to women in India over the last two decades reveals an interesting

VIEWER	SYNTAGMA	ARCHETYPAL IMAGE
I WANT (search for identity)	Advertising story, message, code that draws in the consumer to locate and complete his/her identity(This is me)	As a user of this brand (I am:)(Transient moment of identity)

UMESH GOSWAMI

CHANGING REFLECTION

1990s	2000s
Identify with the protagonist as the hero of the commercial	Identify with the product as the hero of the commercial
I-centric themes	Family-centric themes
Voice of the manufacturer	Voice of the user/consumer
All serious reality	Humour and satire
Celebrity testimonials	Testimonials from experts in the field
Moments of austerity	One of spontaneity and letting go and self control

shift in the archetypal images encoded in the advertising. There has been a movement away from the stereotypical nurturing, sacrificing woman in the seventies to that of a woman of substance in the 90s, only to return to a woman who is the balance- and harmony-seeker in the 2000s.

What is significant in this transition is that the female archetype presented in Indian advertising reflects significant social and economic changes that have occurred in each decade. So, not surprisingly, the woman of substance archetype corresponds with an economic and social milieu that is liberal, global, and open to western and other competitive influences. There is a distinct aggression in the manner in which the woman is projected in advertising in the 90s.

THE ARCHETYPE OF THE INDIAN WOMAN IN THE NEW MILLENNIUM IS ONE WHO IS FAMILY-CENTRIC, BUT NOT A DOOR MAT

THE BALANCING ACT

The return of the balance- and harmony-seeker in the next decade is a reflection of the changing political and social environment. It coincides with the saffronisation of politics and emergence of Hindutva. The woman of substance, the warrior princess, the temptress of the 90s begins to give way to the woman who is seeking a balance between tradition and modernity. The resurgence of family values, return to femininity, and emphasis on social interdependence are reflected in the archetypal images and identity of the Indian woman being projected in advertising. There is a distinct softening in the manner the woman is being projected in advertising today.

Let us take some examples to understand these shifts. Lalita*ji* (Surf), a value-seeking housewife who speaks her mind and selects brands to get the best value, has given way to a Surf mother who is happy to see her children get dirty so that they can grow up right. Similarly, the Rin bank manager, banquet manager in the 90s, has given way to a woman who shops with her husband and is looking for managing the family budget in a sensible way.

The archetype of the Indian woman in the new millennium is one who is family-centric, but not a door mat. She seeks a balance between her own needs and the needs of her family. She has a mind of her own, but she is not seeking to break free and exert her independence at the expense of her family (for example, the Dettol mother).

She seeks convenience and interacts with a modern, techno lifestyle only to be able to generate quality time for her family. She is feminine, attractive, sensuous without defying social propriety. She is her husband's soul mate, a friend to her children, and a mentor to her peer group.

THE TRANSITION

This movement is strongly mirrored by the success of the K series, which showcases *Tulsi*, *Kkusum* or *Parvati* as women who are hardworking, culturally rooted, family-centric, but at the same time educated, have a voice and are pivotal in maintaining a strong family.

This reflection of the Indian woman is a perfect resolution of the conflict that post liberalisation modernity has brought in its wake.

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Cut
Copy
Paste
Clear

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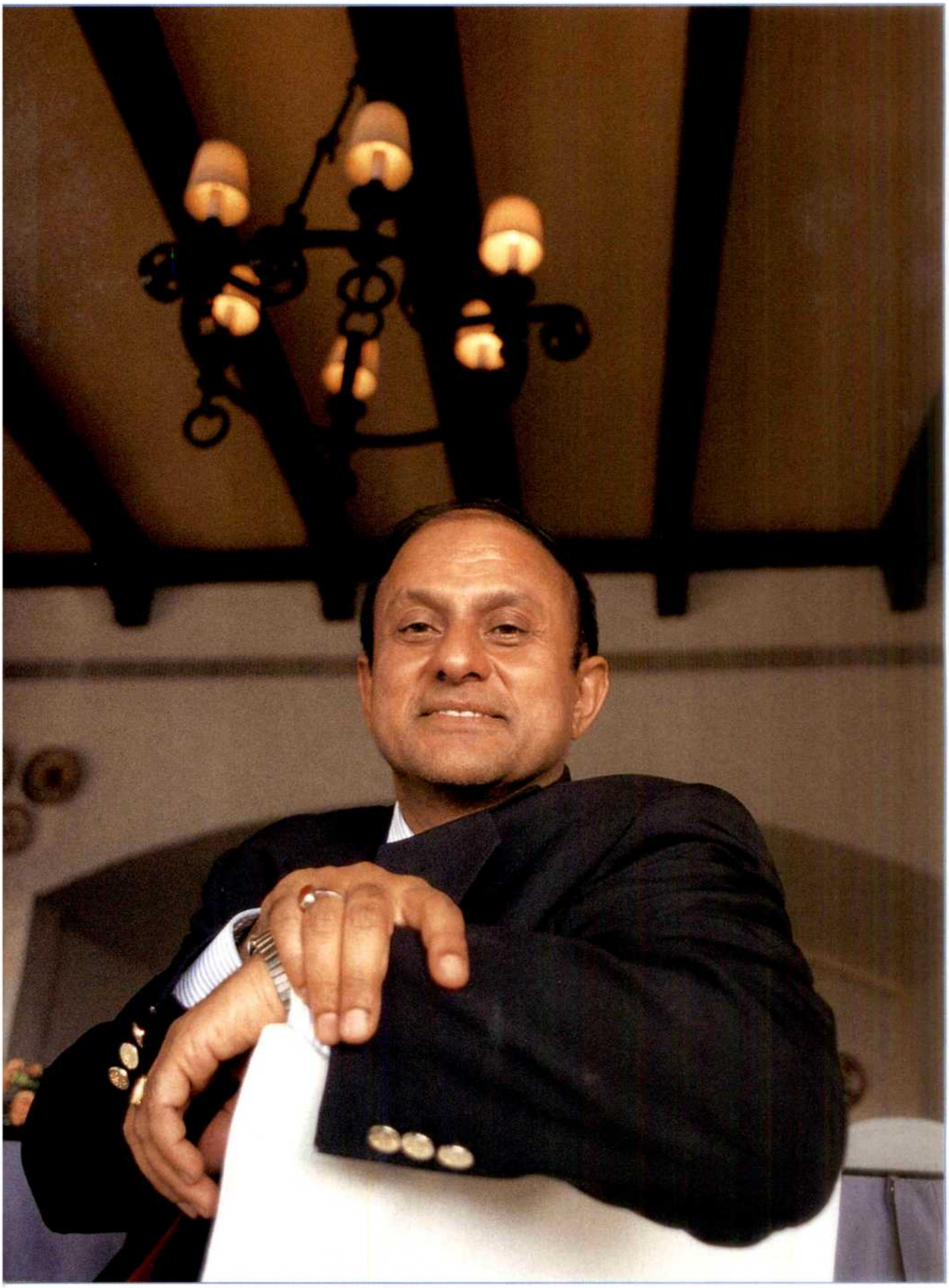
BY VIJAY MAHAJAN

DEAN, INDIAN SCHOOL OF BUSINESS

THE 86 PER CENT OPPORTUNITY

THERE'S A HUGE INVISIBLE GLOBAL MARKET THAT modern marketing has ignored. You cannot wait for these customers to appear on your radar screen. You have to go and find them. Change your perspective and strategies to convert these invisible markets into visible returns. Marketers need to focus on enabling this segment to buy Rolexes, BMWs or Gucci bags since they represent some of the best global market opportunities today. Developed nations with per capita GNP of more than $10,000 account for only 14 per cent of the global population. This means that companies that focus on these markets don't see roughly 86 per cent of the world population. This is the invisible global market. Individually, customers in these invisible markets may represent a small opportunity but the sheer number of this forgotten 86 per cent represents a huge opportunity. If you have been walking by this opportunity on your way to the visible 14 per cent, it may be worth taking a look at the data. Since 1948, barely a handful of countries have jumped to "developed" status. The countries that have managed to do so are countries like Japan, Israel, Singapore and Kuwait—countries with small populations, but with customers not unlike those of any of today's developing nations. Japanese companies have already recognised the trend. It is no coincidence that they have moved from earlier lucrative markets such as the US consumer durables and car markets to focussing on developing countries. American companies such as Hewlett-Packard have already begun to move their research facilities to India in search of the Rs 5,000 computer. On the other hand, Indian companies are building call centres, trying to reach out to the visible 14 per cent market. The $10,000 mark of the visible 14 per cent is a rather crude cut-off and assumes that only individuals in the developed nations have enough disposable income to support a market. However, as most companies are beginning to realise, most developing nations have islands of "developed" customers. In many cases, these "islands" can be less than 10 million people. But even this figure is bigger than the population of entire nations. For example, with 86 million people in Mexico, even if 1 per cent of the population achieves the income status of a developed nation,

TO REACH THE HITHERTO UNTAPPED 86 PER CENT OF THE WORLD POPULATION, MARKETERS NEED TO GO IN FOR A CHANGE OF PERSPECTIVE AND ADOPT A SLEW OF CREATIVE AND UNCONVENTIONAL STRATEGIES. BY VIRTUE OF ITS SHEER SIZE, THIS 'INVISIBLE' MARKET REPRESENTS A HUGE OPPORTUNITY.



VIVAN MEHRA

> **A PRODUCT AND SERVICE REVOLUTION IN ONE INVISIBLE MARKET CAN CREATE OPPORTUNITIES TO EXPORT THE REVOLUTION TO OTHERS**

that segment would be twice the size of Luxembourg. But even if a few high income customers are on the radar screen, the majority of potential customers in developing nations get ignored because of the challenges involved in reaching them through conventional channels. How can you reach this invisible market? Marketers need to adopt unconventional methods to reach and tap this segment. It requires creative marketing and a shift in perspective. The key to strategic success in tapping this 86 per cent opportunity is quite different from that for the developed markets. To find and connect to these customers, companies need to pay attention to the following insights and strategies.

COMPETE AGAINST BULLOCK CARTS, NOT CARS

• **INSIGHT:** In developing markets, your competitors may not be who you think they are. Understanding local needs can lead to a radical rethinking on products. For example, when an Indian-Australian car manufacturer created a rural transport vehicle, it was not designed to compete with automobiles but rather to replace the bullock cart. The new vehicle needed to be able to navigate the rough, narrow roads of rural India and haul both people and cargo. Like the bullock cart it replaces, it functions well at low speeds, with four low gears, and carries up to two tons.

• **STRATEGY:** Focus on using the market as a laboratory for new product designs rather than on conquering markets. A company that sells washers and dryers to Japan is not just penetrating a new market. It has learned about selling products to customers with small homes. It can apply the lessons it has learnt in a market as tough as Japan to a country like India.

EXPORT THE REVOLUTION

• **INSIGHT:** A product revolution such as the motorised bullock cart can often be exported to other invisible markets. Fiat deliberately chose Brazil as the laboratory for launching its new 'third-world car', the Palio, to ensure it would respond to the invisible market. The vehicle was completely re-thought for Brazilian consumers. One year after its launch, Fiat sold 250,000 cars—double the previous record for a new car launch in Brazil. In contrast, Ford's Fiesta, imported from Europe and launched around the same time, achieved less than one-third of Fiat's sales in Brazil. Fiat exported its Brazilian revolution to Argentina, where the sales of its Palio version took off rapidly. Another version is available in India. The Palio was part of Fiat's deliberate shift of focus from the crowded west European market to the invisible global market.

• **STRATEGY:** Instead of focusing on conquering the market, concentrate on learning as much as you can about the needs of customers and developing product and service offerings to meet these needs. A product and service revolution created in one invisible market often creates opportunities to export the revolution to others.

WATCH THE ENEMY SIGHT

In India, under 15,000 of its roughly one billion citizens admit to earning an income of over $28,000 (Rs 12.8 lakh) per year. In fact, the informal economy could be as much as half the market. Creative channels are required for the informal economy. For example, a bright 22-year-old in Jammu, currently a place with few jobs available, approached a computer company to give him an agency to sell their products. He approached the *lalas* of the invisible market, offering laptops not as PCs but as a device to watch movies at night and do accounts in the day. The *lalas* had no problems with the high ticket price of Rs 100,000 as long as they could pay in cash. It seemed an insurmountable problem, until a finance company came to the rescue. It loaned the purchase amount to the *lalas* who then repaid the finance company in installments small enough not to attract attention. The economist Friedrich Schneider estimates that the shadow economy or informal economy may account for one-seventh of the output of the world's wealthiest nations and a much higher proportion of developing nations. According to these estimates, the shadow economy has been growing three times as fast as the formal economy since the 1960s. If you don't see this shadow economy, you could be blindsided by competitors you don't

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even know exist. The informal economy often competes directly with the formal economy, but without the constraints of regulation or taxation. When one country from Latin America opened to foreign companies in the mid-1990s, small entrepreneurial companies began rebottling domestic automobile oil in containers of US oil companies, and selling them at higher prices to take advantage of their brand names. This informal economy accounted for a large part of the oil sold in the country, angering both the foreign companies and the legitimate domestic firm. The lesson here is that instead of fighting to change the market, companies can find ways to exploit it. Most Westerners respond to intellectual property violations by pressuring governments to rigidly enforce anti-piracy laws. But instead of fighting the pirates, it might be a better strategy to take advantage of them. For example, what if Microsoft were to add advertising to its software programs in these countries? Just as the print media differentiates between readership and circulation, Microsoft is likely to gain from its wide distribution, both legal and pirated. Increased eyeballs would add to the advertising revenues. Education also can be used to shine some light into the black market. In Brazil, where pirates account for an estimated 68 per cent of software, Microsoft replaced its hard-line lobbying for trade auctions with a $10 million deal to bring low-cost software to public schools to try to get Brazilians used to the idea of paying for software. Activities of the informal economy can offer indications of unmet consumers needs. If these activities are in the informal economy (assuming they are not strictly illegal), are there ways to meet the same needs in a different way through legitimate channels?

USE GLOBAL FAMILY NETWORKS

• INSIGHT: Why did Japanese companies advertise products in India that were not sold here before the economy was opened to outsiders? Because close to 20 million Indian expatriates live in other parts of the world, the advertisements led local Indians to contact their relatives overseas who brought these products on their next visit. The world's borders are permeable, with non-resident populations connecting different markets in diverse parts of the world. There are more than 23 million foreign-born people in the US, with 7 million from Mexico alone. If these Mexican immigrants spend just $200 per year on purchases for relatives back home, this is more than $1 billion in what are effectively purchases for relatively poor Mexicans. As another confirmation of this interaction between immigrants and their relatives back home, Mexican phone-access receipts from the US are the highest in the world followed by China and India, reflecting higher volumes of calling to these nations. Are American companies aware of this? Are they advertising products in Mexico that might be bought by relatives in the US and sent or taken back home?

• STRATEGY: Even if an economy is formally closed by regulations and income, as long as information is flowing, the market is never really closed. The internet only accelerates this process. Sometimes the most direct route to a customer is not a straight line, but rather a global zig-zag through developing and developed markets.

SOMETIMES THE MOST DIRECT ROUTE TO A CUSTOMER IS NOT A STRAIGHT LINE, BUT A ZIG-ZAG THROUGH DEVELOPING AND DEVELOPED MARKETS

WHEN CUSTOMERS DON'T KNOW HOW TO BE CUSTOMERS

• INSIGHT: Domino's Pizza has taken off in one Latin American country, but for the wrong reasons. Customers see its 30-minute delivery guarantee as a challenge and they take advantage of complex and confusing addresses to slow the driver and receive a free pizza. In most of the invisible economy, there is no consumer culture. Customers in emerging markets do not behave the way marketers expect. They have never been taught to be customers, so you cannot assume that they will respond in the way customers respond in developed markets. As another example, money-back guarantees don't always translate well in these markets. Amway in China told customers that if they were not satisfied, they could bring the product (soap) back for a full refund, no questions asked, even if the bottles were empty. Some enterprising third parties began repackaging the soap and returning the empty bottle. Others just scoured empty bottles out of trash cans to seek refunds. When refunds mounted to $100,000 per day, Amway rescinded the policy, only to face angry distributors who marched into offices to complain. They felt they were entitled to the refunds. Amway offers the same guarantee worldwide—with very different results—so it was surprised by the Chinese reaction.

ONE WAY TO REACH CRITICAL MASS IS TO POOL DEMAND. ANOTHER IS TO MAKE THE PACKAGE AFFORDABLE TO MORE PEOPLE

• STRATEGY: Companies cannot assume that customers know how to be customers. Firms may need to rethink their approaches to reach these customers or spend more time to educate them.

REMEMBER, OLD IS NOT GOLD

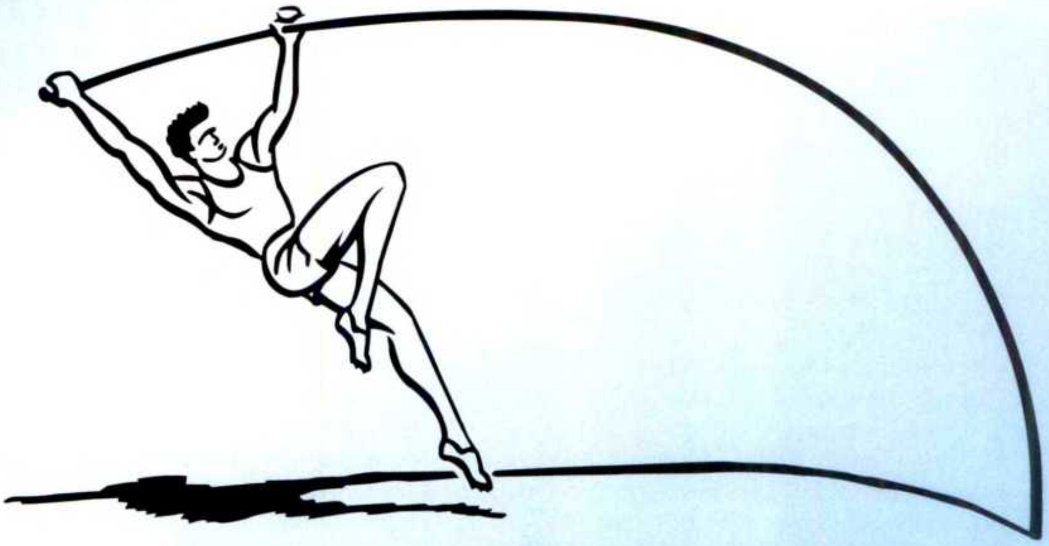
• INSIGHT: Realising that the Indian market for its luxury cars was limited, Mercedes-Benz built a factory in 1995 to produce an older model car used for taxis in Germany. Indian consumers turned away from what was perceived as an inferior product, leaving the the company's plant hobbling along at 10 per cent utilisation of capacity. Amway took a drubbing in South Korea when consumer and environmental groups began claiming that its dish detergent did not meet Korean biodegradability standards. Although the soap mets international standards for degradability over an eight-day period, South Korean activists used a one-day test (claiming Korean streams were shorter). They also claimed the product was overpriced, although Amway officials claimed this was a misperception. Regardless of the validity of the allegations, the perception of poor quality led to a precipitous loss of nearly two-thirds of its sales there in a seven-month period. Perceived quality is extremely important, even in emerging economies.

USE 'DEMAND POOLING' TO REACH CRITICAL MASS

Sometimes, to find a market large enough to serve, you need to gather customers together. Because shoppers in a Latin American country buy their food fresh every day, there is not enough volume to support a large supermarket (for example, few retail customers would buy a dozen oranges). So an enterprising retailer created a supermarket where small grocers can shop. Grocers buy larger quantities (like fresh fruit) that they then divide up for their customers. Is it worth marketing cellular phones to tiny villages in Bangladesh? Not according to traditional approaches to marketing. The market is too small and income is too low to make the villages attractive target markets. Yet, Grameen-Phone, a Dhaka-based company, has developed a strategy for marketing cell phones to the 35,000 villages in Bangladesh. It has appointed women in the villages as agents who lease phone time to other villagers, one call at a time. One way to reach critical mass is to pool demand. Another alternative is to reduce the package size to make it affordable to customers with low income. A building supply retailer in a Latin American country found that by reducing the size of its bags of cement, it could offer quality products in small packages to customers building their own homes. The company also offered innovative financing schemes for building materials for shanties. Similarly, the one-kilogramme cement pack has become ubiquitous in India.

BRING YOUR OWN INFRASTRUCTURE

The competitive environment of the invisible economy is often quite different from traditional markets. Coca-Cola rarely has to think about electricity in the US, but it is a serious concern in the developing world. How can the company keep sodas in machines cold when the public electric supply may be cut off for hours? What happens to computer systems? Coca-Cola's challenge is to design refrigeration systems to ensure products remain cold despite long power outages. Other companies need to use battery back-up systems to keep computers running despite fluctuating power. Similarly, clean water is a problem in many developing countries, but portable purification systems can clean the water as it comes out of the tap.



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Finally, the lack of telephone systems in rural areas is being overcome by the rapid spread of cellular telephones. New technology and innovative solutions help to overcome inhospitable business environments. Sometimes, as with the rapid spread of cellular systems in countries without extensive landline infrastructures, innovative technologies may allow the new markets to leapfrog more developed nations. Companies can wait years until governments build the reliable infrastructure to support their businesses or they can accept the environment as it is and work out solutions of their own. The motto should be, 'Don't wait, innovate.'

RETHINK THE ENTIRE MARKETING AND BUSINESS STRATEGY

- **INSIGHT:** Customers in the invisible 86 per cent are culturally extremely diverse, even within the borders of the same country. There is no melting pot here, and this requires re-thinking the entire marketing and business strategy. For example, a wealthy housewife may set the trends for maids and others employed in her household, a fact that is often missed if companies focus on the end-purchaser. In many Indian households, for example, there may be as many as six part-time workers (for example, *dhobhi*, cleaner, cook, driver, handyman, maid) who regularly meet *memsaheb*. *Memsaheb* advises them on all kinds of problems and on purchases as diverse as cough medicine and detergents. By default, she is the decision- maker for six families. But how many companies target her as the most important influence point for products designed for the six families? If she herself uses these products, think for a moment about the multiplier effect on sales. There are one billion people of Islamic heritage, and maybe 250 million of them are conservative women. How do you market products in this market? Recognising that this segment buys a lot of jewellery, *Islamic Horizon*, a market research magazine, points out that typical modern advertising strategies revolving around emotions such as 'buying a diamond shows you care' don't appeal. For this group, jewellery is an expression of wealth, prosperity and security; and a handbag represents the woman in advertising. To address the very different dynamics of the invisible global markets, companies often have to do more than merely tweak their existing marketing and business strategies. For example, companies need to be aware that the change agent influencing a decision might not be the customer or even a familymember. And marketers may need to rethink the unit of analysis because it sometimes takes a village to make a purchase. Where repair costs are high, companies need to think about the lifetime costs of ownership of major purchases such as automobiles, rather than purchase price. The digital divide may increase the gap between large companies and the invisible market. In India, for example, the penetration of PCs is only 0.5 per cent and this technological barrier threatens to make these markets ever more invisible. Companies need to think of clever ways to offer access to internet infrastructure, as creative entrepreneurs are already doing through kiosks and other shared methods of access. Companies can initiate programmes for their employees, as Ford is doing by offering PCs and internet services to employees around the world. In addition, the content of internet-based marketing needs to be rethought for these markets, with an emphasis on educating consumers and reaching markets with a low credit card penetration.

COMPANIES CAN WAIT YEARS UNTIL GOVERNMENTS BUILD NEW INFRASTRUCTURE OR THEY CAN GO AHEAD AND WORK OUT SOLUTIONS OF THEIR OWN

THE INVISIBLE GLOBAL

This 86 per cent invisible market is likely to become even more significant in the decades to come. As population growth slows in major developed countries, more customers will be from the invisible global market. Even though these consumers will move to higher income segments, many will continue to fly below the radar. You cannot wait for these customers to appear on your radar screen. You have to go and find them. You need to move off the beaten path, both in the products you develop and the creative strategies you use, to turn these invisible markets into visible returns.

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BY K. MAHESH

CHAIRMAN AND MANAGING DIRECTOR, SUNDARAM BRAKE LININGS

MADE IN INDIA, WORLD CLASS

FROM A DECLINING PROFIT-LINE AND LOW EMPLOYEE MORALE IN 1987 TO WINNING THE FABLED DEMING AWARD, IT'S BEEN A LONG JOURNEY FOR SUNDARAM BRAKE LININGS. THEN AGAIN, THE JOURNEY TO WORLD-CLASS QUALITY IS A NEVER- ENDING ONE.

THOSE WERE THE GOOD OLD DAYS WHEN THE manufacturers—be it a vehicle manufacturer, a consumer goods manufacturer or an auto component manufacturer—decided what the customer needed. This was a perfect prescription for disaster, but Indian companies continued to thrive because the customer had no options. When the rest of the world was adapting to change, we in India were merely talking about change without following it up with action. Things started to change from the mid-eighties and many companies got their wake-up call—some even felt the options were change or die.

Sundaram Brake Linings Ltd (SBL) was no different from the regular run-of-the-mill auto component manufacturer in the mid-80s. High inventory (inventory turn of around 6.5), work in progress (WIP) of over three weeks, high internal scrap (6.5 per cent), very large economic batch quantity (EBQ) of 20,000 pieces, high rework (3-5 per cent), high finished goods stock (15-20 days), poor delivery record (60 per cent of the sales took place in the last week of the month), and high customer returns (over 2 per cent). With all this, we were still making a profit of sorts—3 to 5 per cent of profit before tax.

THE AWAKENING

We saw the downward trend in profit and low morale in the company in 1987, and we understood that we were heading towards disaster. We realised that we needed to change, but how to change was the big question. The series of changes that took place subsequently in SBL were more due to a series of fortunate breaks and not necessarily by deliberate design.

One day, my cousin Venu Srinivasan dropped in and said, "Read this book, I think it's good." It was *Goal* by Eliyahu Goldratt. This was the magic pill we had been searching for. Anybody can read it in less than four hours and you will feel it has been written for your company. I was fortunate that one or two of my senior managers, particularly V.R. Janardhanam, President, saw it the same way and this led to the group reading of the book.

This created a lot of heat in the company, but we still needed to take the first step. In this we found an Indian *sensei* (guru) who started us on our Total Quality Management (TQM) journey and taught us the use of basic seven quality control tools at all levels, starting with me, the chairman and managing director, to the security guard. We soon realised that

VIVAN MEHRA

THE FUNDAMENTAL NEED FOR PROGRESS IS A CHANGE IN MINDSETS—SOMETHING THAT CANNOT BE ACHIEVED WITHOUT COMMUNICATION

reading or training is one thing, but implementing, quite another. No *sensei* can implement change; it is a job for the CEO and cannot be delegated.

Finally, I addressed the workers, bit the bullet, apologised for the way the company was led, and requested their co-operation to change the way we worked. This is the boldest and the best step a CEO can take. In retrospect, it makes you a better man, and workers, over a period of time, start to look up to you and never remind you of your faults, which really was the original cause of the problem.

TRAVAILS AND REWARDS

The fundamental need to progress is a change in the mindset. This is something that has to be done internally, and there is no laid-down sequence of actions that are required, except communication at all levels. We started with housekeeping (it is called 5S). We also worked on process capability and on the huge "work in progress".

We were lucky to get another break in 1989, and started working with Dr Parnaby of Lucas Engineering Services of the United Kingdom. Lucas Engineering's team of qualified engineers who had earlier implemented change in various companies in the UK, helped us look inward at our faults, designed U-lines for processing, introduced Kanban systems so that production planning is passed on to manufacturing people. Quality was made the responsibility of the operator. In one stroke, we made redundant the inspectors of the quality department and the production planners in the production planning department. The work in progress, which was over three weeks, started dropping towards one week.

We started working with the suppliers and showed them the changes we were trying to bring into the manufacturing system. We were able to convince many that instead of getting lorry loads of a single material once a month, it is advantageous to get materials once a week or even daily.

This was around 1992, and we knew we still had a long way to go. We started reading books by Taichi Ohno on "new production systems" and Shigeo Shingo on single-minute exchange of dies (SMED). Both were fully involved in the development of the Toyota Production System (TPS) and this gave us some insight into TPS.

THE BREAKTHROUGH

It was in 1997 that we got our biggest break when we were invited to join the Maruti-CII TQM Cluster with Prof. Tsuda San as the *sensei*. With this, things changed rapidly. Tsuda San started with simple principles of exactness, visualisation and daily-work management in TQM, and slowly took us to higher levels of TQM through gap analysis, PDCA (plan, do, check and act) cycle, MPCP charts, and finally, management for objectives. Exactness and visualisation was achieved through 5S implementation with a lot of thinking process and daily work management, all alien to Indian ethos. The gap between the plan and the actual on shift, daily, and monthly bases was analysed and an action plan initiated.

For most Indian companies, daily work management came as a cultural and psychological shock. "Can't be done" was the general murmur. It's during such trying times that the CEO has to play his role and lead from the front, scotch rumours and pull up the doubters. Around 1998, Dan Jones, co-author of *Machine That Changed The World*, visited our plant and spent exactly three minutes and said, "Mahesh, your material flow is no good." He gave me a book *Lean Thinking*. I thought, "here we go again". In combination with *Learning To See Again* given by Dan, we realised that our value addition was a mere 2 per cent of the time and 98 per cent was wasted activity, or as the Japanese call it, *muda*. So, things picked up speed on value addition. We had a problem because the machine uptime was low—overall equipment efficiency was as low as 40 per cent.

GETTING IT RIGHT

So, with great difficulty, we roped in Yamaguchi San of the Japanese Institute of Plant Maintenance (JIPM) for total productive maintenance (TPM). So, we were practicing TQM, TPM, and lean—all at the same time. In retrospect, it was fun and it was needed, but there was a lot of frustration and people were often at breaking point. The sunny side is, when results start coming in, the mindset changes and this is exactly what happened in SBL. The workers and the supervisors realised that their work was less tiring, more organised, and results came automatically as long as we got the process right.

So, by 2000, after 13 years, we got results something like below:

LIGHT AT THE END OF THE TUNNEL

	1986	2000
Inventory turn	6.5	**45**
Internal scrap (%)	6	**1.5**
Rework (%)	3	**0**
Work in progress (in days)	21	**0.8**
Finished goods stocks (in days)	60	**5**
Customer returns (in PPM)	20,000	**550**
Raw material stock (in days)	21	**1.5**
OEE (%)	40	**85+**

WHERE DO YOU START? MY ADVICE: START ON ANYTHING, BUT THE MOST IMPORTANT THING IS FOR THE CEO OF THE COMPANY TO GIVE THE 'GO AHEAD'

So, have we arrived? No way. There is still a long way to go to become "World Class". In SBL, change has become a way of life with people and our machines were really on wheels and layout changes were constant. The OEE, which was as low as 40 per cent, increased to over 85 per cent. We then worked on improving OLE (overall line efficiency) and this has increased to over 80 per cent and we are working towards 90 per cent-plus.

A MILESTONE

It was at this time that our *sensei* Tsuda San said, "maybe SBL should challenge Deming Award". It came as a pleasant shock to us as we never thought we had come far enough to do that. So, we reached a milestone in challenging and winning the Deming Application Prize in 2001 (the second in India, the fifth outside Japan, and the first friction material manufacturer in the world).

Everybody in the company now realises that the journey is never ending and that the more improvements we make, the more we realise that we can do it better. As a result of this attitudinal change, suggestions and improvements are now flowing upward from the shopfloor and not from the top.

None of the things we did was rocket science, it was pure common sense. But as people get more educated, the less common sense seems to remain. The simple solution is to talk to the workers (the Indian worker has, in my opinion, a very high level of common sense compared to his compatriots in the West). It is equally important that managers cultivate the humility to learn from the worker. This is where organisations have to change the way they think and operate—a company's biggest assets are not its land and machinery, but people. We export over 50 per cent of our production to 50 countries and more, and we are confident that within the next two years, we will be able to compete with anybody who tries to sell brake linings in India on equal terms. .

SBL has been spending over 3.5 per cent of its sales on R&D (18 per cent of gross block is in R&D) compared to the national average of less than 1 per cent. This will be raised to around 5 per cent within two or three years, to remain competitive in the ever-changing global market.

We are amused when we hear about seminars on Lean Plus Balance Score Card, Six Sigma Plus, ERP and MRP. Such a plethora of programmes has left Indian industry confused. Where do you start? My advice: Start on anything—TPM/TQM/lean, but the most important thing is for the CEO of the company to give the all-important 'Go Ahead' for the change management programme. The change has to be internally led by the CEO. *Senseis* can only guide, they can't do it for you.

In conclusion, I want to make two observations: One, people in SBL feel we should have made this change long ago, but looking back, we can proudly say that we have done a major part of it. Better late than never. Two, there has been a lot of debate whether Indian companies should follow only one methodology i.e., TQM or TPM or Lean. We in SBL feel that for a company to become competitive, we have to embrace all of the above. Each has its own role to play to improve competitiveness. In effect, Lean, which is Toyota Production System, embraces both TQM and TPM, but never mentions them by their name. I hope it puts to rest the "Great Debate" on what is suitable for India.

BT THE NEW PARADIGM: LEADERSHIP

BY ARUN MAIRA

CHAIRMAN, BOSTON CONSULTING GROUP, INDIA

LEADERS: MOVING FIRST AND FURTHEST

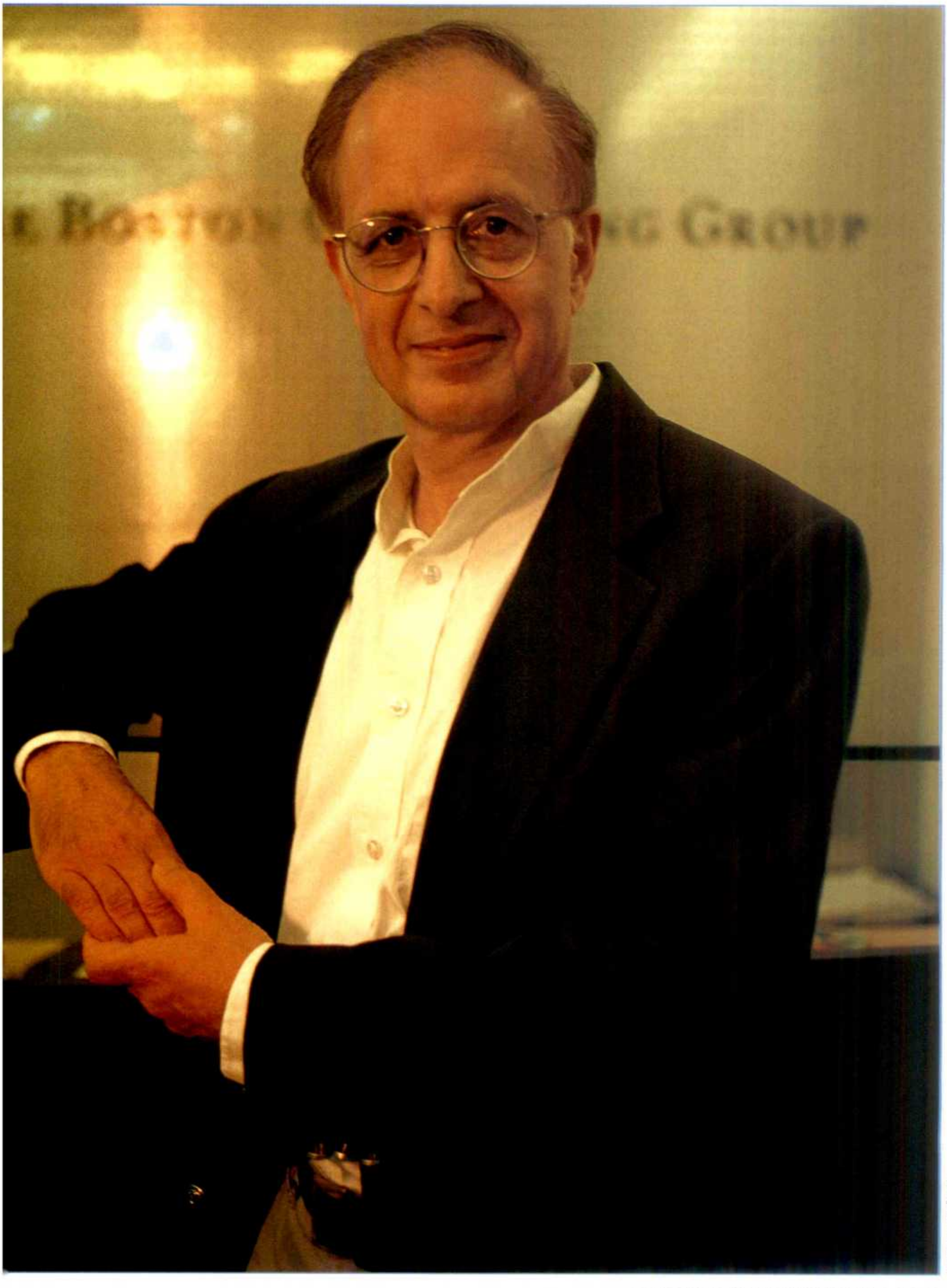
SIXTY CEOs OF INDIAN COMPANIES GATHERED IN THE Crystal Room of the Taj Mahal Hotel in Mumbai soon after the Narasimha Rao Government opened the Indian industry to more competition. N. Vaghul, Chairman of ICICI, had invited them to a workshop on transforming their companies. He knew ICICI had to shake itself up because the conditions in which it had built its success in the previous decades had passed. And the companies he had invited, many of them clients of ICICI, also had to take stock of imminent changes in their environment and alter their approach to management if they were to remain successful. If I recollect right, Jamshed Irani of Tata Steel, Suresh Krishna of Sundram Fasteners, and Baba Kalyani of Bharat Forge were there amongst others. Following that workshop, many CEOs deputed teams of their senior executives to follow-up workshops in Hyderabad. These workshops looked systematically at scenarios that could emerge in various industries. Separate workshops looked into the future possibilities for IT and electronics companies, automobiles and parts, steel, and food products.

> INDIA'S BUSINESS LEADERS 10 YEARS FROM TODAY WILL BE LARGELY THOSE WHO WILL HAVE IMPLEMENTED INNOVATIVE IDEAS. SOME BY LEVERAGING OUR COMPETITIVE WORKFORCE, OTHERS BY CREATING NEW, PROFITABLE BUSINESSES THAT ARE INTEGRATED WITH THE COMMUNITY AND ENVIRONMENT.

The agendas differed by industries. The IT companies were sitting on an untapped source of competitive advantage—skilled programmers—with which they could foray into markets of the West, especially the US. Finding clients abroad, servicing their needs reliably, and moving beyond body shopping to projects, would be their medium-term agenda. Many IT firms have performed admirably through the last decade.

The manufacturing companies, in automobiles and parts, in steel, and electronics hardware that had been operating much longer in India than the IT companies had an internal transformational agenda to attend to. Their productivity was low, costs were high, and customer orientation was poor. If they could not fix these internal problems, they would have no hope against foreign competition abroad or even within India. Many Indian manufacturing companies have bitten the bullet admirably. Tata Steel, Sundram Fasteners, Bharat Forge, Hero Honda, and others have reached world class standards in their industries.

While Indian companies applied themselves, with different levels of dedication and varying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SANJAY PANDYA

LEADERS IN THIS DECADE WILL BE THOSE WHO LOOK AHEAD, TAKE ADVANTAGE OF CHANGE, AND PUSH THE BOUNDARIES OF BUSINESS

levels of success, to their transformation agendas, the world also changed in the 1990s. The IT industry grew at a fast pace globally, providing increasing scope for the growth of Indian IT companies. Meanwhile, Indian manufacturing companies, some sooner, others later, began to squeeze out productivity improvements from their assets and reduced investments in fresh capacity, causing a fall in demand for capital equipment. This hit Indian capital equipment producers hard and their bottomlines seemed to have been worst affected by the winds of change in the nineties. Now several of them, such as L&T and Thermax, having restructured their organisations, are looking outwards to international markets. They are building on the competitive advantages of quality and costs of Indian engineers. By factoring in the engineering competencies they have built over the years when they were compelled to design and produce everything in India, they are now seeking bigger markets abroad. Ahead of them, pharmaceutical companies, such as Ranbaxy and Dr. Reddy's, have leveraged Indian factor cost advantages in skilled people and technology assimilation to grow international businesses.

Wipro's Bangalore campus: Building leaders of tomorrow

DEEPAK G. PAWAR

NEW FRONTIERS

All CEOs are not leaders. And all leaders are not CEOs. Leadership is not a position on an organisational chart. In the past, leaders were those who moved first and furthest to seize opportunities presented to them and deal with the transformational challenges thrown up by the liberalisation of the Indian business environment and by globalisation. However, the world of business has changed and a host of new challenges has emerged. Leaders in this decade, as in the last, will be those who look around and ahead, take advantage of change, and push the boundaries of business by thought and action. What are the frontiers to be shaped?

The first frontier is the global footprint of their business. Other than IT companies, most Indian businesses have barely scratched global markets for transforming the shape and growth of their businesses. Indeed, for many there is as yet major unfinished business at home, that of productivity and cost improvement. But there are path-breakers. The A.V. Birla Group has successful companies in South East Asia, two of which have won the prestigious Deming Prize for Quality. Sundram Fasteners has developed a global niche. Ranbaxy has already grown its business in the US to a size larger than its domestic business. Tata Tea with its acquisition and integration of Tetley has more revenues outside India than within. And Tata Steel, the grand daddy of Indian industry, is developing business in China and South Africa.

The second frontier is within India. Business leaders in many industries, FMCG, food products, telecom, consumer durables, farm inputs, even IT, are devising innovative approaches to tap the underdeveloped rural markets in India. The potential is vast. But it cannot be converted into profitable business opportunities without appropriate concepts of products, distribution, and organisation. Simply pushing concepts that work in the more approachable and richer urban markets cannot work in rural markets. There are many pioneers. ITC's e-*choupals* are a good example of how the combination of IT with new concepts of organisation is creating new business opportunities for ITC, as well as beneficial changes for the communities where these innovations have been developed. ICICI is working along with others to sell its services in small villages. NIIT is tapping markets for IT-based education in several rural districts. And Reliance is hoping to grow a huge market for telecom in smaller towns and villages with an innovative business model and appropriate technology.

Two developments combined in the 1990s to push Indian business leaders into the third frontier. Indian CEOs have acquired greater freedom with the dismantling of the control regime in the 1990s and greater prominence and respectability in Indian society, while respect for politicians and bureaucrats has reduced. Society now expects CEOs to influence the economic, social, even political agenda of the country. At the same time, the influence of western investors and analysts has sharpened the focus of Indian CEOs on creating value for shareholders. Therefore, the precise role of business leaders in society is becoming confused. Should businessmen focus only on business or should they also be responsible for what happens in the physical, social, and political environment around their businesses? If it is the latter, leaders must find effective ways to play that role. So far, there are very few models.

TO TAP THE POTENTIAL OF INDIA'S RELATIVELY POOR RURAL MARKETS, NEW BUSINESS SOLUTIONS WILL HAVE TO BE DEVELOPED

The fourth frontier is within the mind. Innovation is necessary for Indian businesses to compete against larger global players. Imitation of the strategies and processes of players with larger resources is a strategy doomed to fail. Moreover, if the only competitive advantage an Indian firm has is the lower cost of its resources in India, it is vulnerable because large multinationals can also access them. In fact, large transnational IT companies are setting up operations in India to use the same resources that so far gave Indian firms their competitive advantage.

To successfully cross the first frontier of global competition, Indian firms will have to be more inventive and quicker than their international competitors. To cross the second frontier and tap the potential of India's poor rural markets, new business solutions will have to be developed. And Indian firms should also aspire to be leaders in finding ways for businesses to play a more effective role in a liberal, democratic society. If leadership, by definition, is about being the first and going further than others have been so far, the agenda for Indian business leaders is to find innovative paths to cross these frontiers.

Societies and organisations find innovators inconvenient to deal with because innovators want to break the rules that were created to make things predictable and efficient. They believe in challenging authority. Large organisations struggle with these difficulties when they try to develop an innovative culture, while simultaneously trying to improve discipline and efficiency.

The essence of innovation is to break out of mental boxes, such as categories and definitions that we develop for the sake of convenience. For example, we categorise industries into manufacturing and service, and within these broad categories, into sub-categories, so that we can measure their outputs, impose standards on them, and regulate them. However, innovators are the mavericks who break out of prevalent categories and create new ones—new solutions, new businesses, even new industries.

Therefore, I am convinced that the people we will describe as Indian business leaders 10 years from today will be those who will have implemented innovative business ideas that will be emulated not only in India but globally. Some of them will have leveraged the competitive advantage of an Indian workforce with remote servicing capabilities to generate profits in many industries other than IT itself. Others will have created new, profitable businesses at the lower end of the income spectrum. Yet others will have demonstrated to the world how to manage a profitable business that is integrated with the community and environment. In these and other ways, they will be pathbreakers.

BT THE NEW PARADIGM: ENTERPRISE

BY SUNIL MITTAL

CHAIRMAN AND MANAGING DIRECTOR, BHARTI ENTERPRISES

INDIAN ENTREPRENEURSHIP

THERE WAS A TIME WHEN AN Indian entrepreneur believed in a dream of somewhat limited scale. A small restaurant owner would want to build a hotel. A shopkeeper wanted a department store. A trader or small manufacturer of parts wanted to build a big factory. The biggest motivation was to become 'BIG'—reflected in the wealth you accumulated, symbolised by the value of possessions.

The first wave of change happened rather slowly. Global awareness started to make an impact. The dreams changed, the canvas became larger. Success stories were now being showcased by the media. The Indian entrepreneur went beyond the metrics of 'personal wealth'. The dream was now to build 'large businesses' with scale, size and dimension. The vision was to become a part of the Asian-Global landscape—largely in terms of 'size'. This wave saw the emergence of some large Indian corporations of national stature.

> THE FIRST WAVE OF CHANGE HAPPENED SLOWLY. GLOBAL AWARENESS STARTED TO MAKE AN IMPACT. THE DREAMS CHANGED, THE CANVAS BECAME LARGER. THE INDIAN ENTREPRENEUR WENT BEYOND THE METRICS OF 'PERSONAL WEALTH'. THE DREAM WAS TO BUILD 'LARGE BUSINESSES' WITH SCALE, SIZE AND DIMENSION.

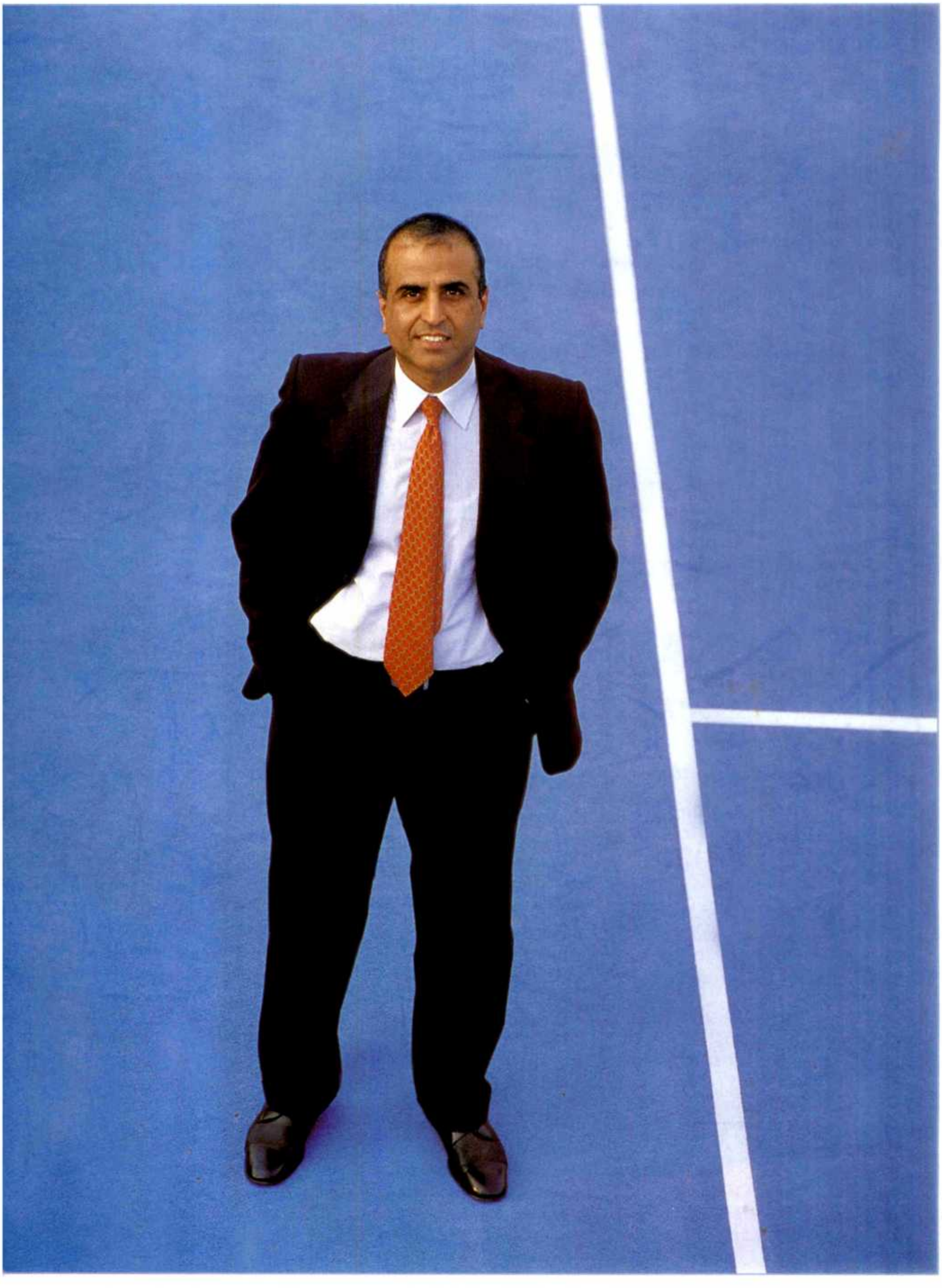
The second wave was quick and extremely dramatic. The Indian entrepreneur began to look beyond business results, size and scale. The Indian entrepreneur wanted to create a new concept, define a new paradigm. He wanted to make a difference in the way the country was perceived by the world. The new Indian entrepreneur wanted to dimensionalise size in ways that went beyond 'making a big buck' or merely building a very large pan-Indian company.

This new Indian entrepreneur desired to build a globally competitive and recognised institution that stood for core values of innovation, people, quality, performance, and a high standard of service. He believed that all this was possible by building a highly motivated team, which was committed first and foremost to the customer, then to any other stakeholder.

AN ENTREPRENEUR'S SPIRIT

In many ways, companies like Bharti, Jet Airways, and Infosys epitomise this new Indian entrepreneur. Bharti, for example, symbolises a desire to make a difference to the way India communicates. To realise the aspirations of the people of India by giving them a world-class end-to-end telecom infrastructure.

I have always believed that an entrepreneur relates to the environment and changes it for



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the better. He starts, therefore, with a quest for what is missing in the environment and strives to achieve that through integrity and endeavour. Essential to entrepreneurship is the ability to carry people without being burdened by their weight, to motivate them by drawing inspiration from within them and others around.

My role as the leader of the company is to create team leaders within the company and ensure that they achieve the highest level of performance. It is to move the enterprise at a high speed through people and processes. It is to define goals that are achievable and to lead the team to meet business objectives.

I began this journey armed with Rs 20,000 and a big dream—a dream to create an enterprise that rose up to global standards. In many ways, this dream was inspired by a small quote from Mahatma Gandhi, "A small body of determined spirits fired by an unquenchable faith in their mission can alter the course of history."

THE NEW ENTREPRENEUR WILL MAKE A DIFFERENCE BY CREATING VALUE, BEING ETHICAL AND OPEN, AND BY BUILDING STRONG PARTNERSHIPS

THE NEW WAVE

I am penning down just a few initiatives I have implemented within Bharti. I believe that these are common to, and symbolise the new wave of Indian entrepreneurs:

- Constant generation of entrepreneurial and innovative ideas, which will create new growth engines. (Bharti, for example, is committed to deliver services beyond the expectations of the customer).
- Committing to building exemplary relationships with partners. Such relationships are based on the principles of mutual trust and growth.
- Creation of a robust, lean and scalable infrastructure at par with global standards that will make use of technology to create revolutionary applications, products, and services.
- Building of a strong management team and a globally practiced 'people development' process to identify the development needs of your top management.
- Always keeping the first mover advantage, and executing ideas with speed and aggression.
- Making innoventuring a core value within the organisation. (We have established processes within Bharti that help us capture innovations and integrate them with product development and the customer service delivery process).
- Developing a formal, globally recognised, statistical consumer relationship management measurement tool. We have a customer relationship assessment model that helps us track the expectations and satisfaction levels of our customers. Complement this robust process with world-class data-mining tools to get a 360-degree view of the customer.
- Building a globally recognised, strong consumer brand that customers desire to own and possess. AirTel has been recognised by global organisation 'Superbrands' as a 'Superbrand'.
- Giving back to society in your own unique way. We have set up "Bharti Foundation", a charitable trust whose objective it is to promote and support activities related to education, health and medical sciences, Indian culture, population control, family welfare, child-care, nutrition, and environment.
- Encouraging active, quick decision-making (nimble-footedness), both as a culture and a process.
- Staying focused on improving the quality of your relationship with your customer constantly.

To conclude, I see the new Indian entrepreneur quite clearly. He dreams a clear dream. He will take the dream and unify the enterprise with the simple idea of achieving the dream. He will envision change and change the direction of the enterprise before change stares him in the face. He will lead teams to make them achieve the highest levels of performance. He will effectively move the enterprise at a high speed through people and processes. He will make a difference to the country by creating the finest value for the customer, the shareholder and the community by being ethical, open, transparent and by building strong partnerships.

I am proud to be an Indian and do believe that Indian entrepreneurs can, and will be recognised as the best in the world in the years to come.

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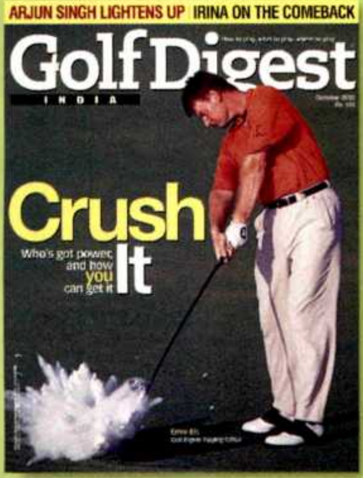
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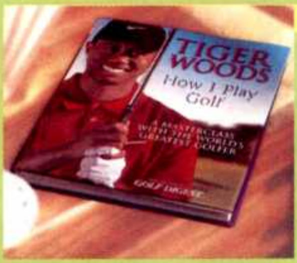
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Golf Digest
INDIA
How to play, what to play, where to play

BY O.P. MUNJAL

CO-CHAIRMAN AND MANAGING DIRECTOR, HERO CYCLES

THE EVOLUTION OF AN ENTERPRISE

OUR GROWTH AS HERO CYCLES AND AS HERO GROUP IS the story of post-Independence entrepreneurship. Initially, we were in business, but in a modest way. Just before the Partition, we moved to Amritsar from Kamalia in Lyallpur district, now in Pakistan. Today, almost 60 years down the memory lane, I vividly recall the time when we, four brothers, started a modest business of bicycle components in 1944. At that time, bicycles were an imported item and we thought we could do something in that area as the war-ravaged continent had problems in importing products and machinery. Not everything went as expected. Agony of the Partition in 1947 added to our discomfort, and like millions of others, we lost all our assets in Pakistan.

> THE MOVE INTO BICYCLE MANUFACTURING WAS BACKED UP BY LITTLE MORE THAN PATIENCE, DEDICATION, AND DETERMINATION. SINCE FUNDS WERE A PERENNIAL PROBLEM, THE FOCUS WAS ON COST. JUDICIOUS USE OF RESOURCES HAS SINCE REMAINED AN INTEGRAL PART OF HERO'S STRATEGY.

Our shifting from Amritsar to Ludhiana was a strategic decision that paid dividends, as Ludhiana quickly emerged as a centre of excellence for light engineering. We moved into bicycle manufacturing with little other than patience, dedication, and determination. Since funds were a perennial problem, the focus was on cost. Judicious use of resources has since remained an integral part of Hero's strategy.

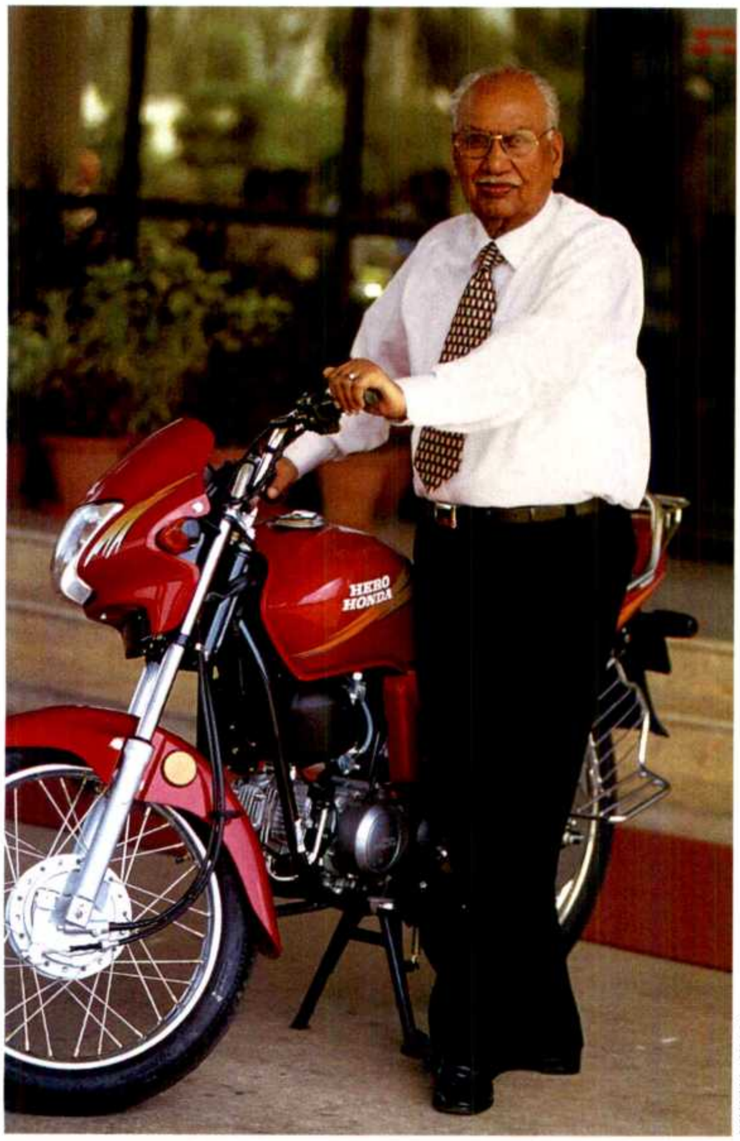
Whatever we earned, we ploughed it back into our business with the idea of growing it. And this simple strategy has stood us in good stead. We cultivated a frugal lifestyle and the only passion with all the Munjal brothers was, and continues to be, work—hard work. The dream to produce a little more every day, day by day, has been the manufacturing philosophy and the secret behind Hero's steady rise. I don't think there has been any other magic formula. Possibly, another driving force was our large family. Every year, we have had to look for a growth avenue so that the incoming members could gainfully contribute to our growth, and independently, as far as possible.

HOW WE DID IT

I earlier mentioned about Ludhiana and its strength as a manufacturing place. Ludhiana has emerged as a major source of bicycle components and accounts for 80-85 per cent of the total production. The bicycle market could expand because it was very competitively-priced, and due to constant growth in demand we have

RITESH SHARMA

WHAT WE EARNED WAS PLOUGHED BACK INTO OUR BUSINESS WITH THE IDEA OF GROWING IT. THIS HAS STOOD US IN GOOD STEAD


B.M. Munjal: The patriarch and the driving force

VIVAN MEHRA

been able to absorb a substantial increase in cost. The Ramgarhias, a local community with a recognised mechanical bent of mind, account for a majority of our vendors, and it is these vendors who provide a vital edge to Hero. Highly-skilled and hard-working people, these vendors have learnt to work with low overheads. For example, many of them actually live in their factories.

With hands-on marketing of bicycles, we built a personal relationship and strengthened that association. We have been enlarging our relationship by including people of various skills and requirements. However, all our associates know it well that "Hero is growing, (so) grow with Hero". And they also know that we mean every word of it. We use this relationship in an extended manner. Whenever we acquire newer technologies, a lot of our vendors and employees also grow stronger, gaining higher skills and getting the benefits of our splendid growth.

A thorough understanding of the fast-changing consumer behaviour, new market segments, and product opportunities, along with sensitivity to changing customer needs form the core of Hero's marketing strategy and philosophy. In my opinion, if you create a work culture where people are cared for, they will put in their best, strive for excellence or at the least do better than the competition.

REACHING OUT

We have also looked for ways to reach the customer more effectively. For example, unlike the traditional practice of serving the market through agencies, we introduced the concept of dealerships. Within a short span of time, we were able to build a strong network of 3,500 dealers all over the country. Catering to them once a month with no warehouse has helped us establish a compressed and cost-efficient supply chain.

The cornerstone of low-cost manufacturing, we believe, is productivity and investment in productivity. We have been regularly upgrading our equipment. For instance, Hero bought welding robots. Polishing too is robotised in Hero. Similarly, Hero's rim-profiling mill, at the rim-manufacturing plant, is the fastest steel rim-rolling mill in the country. Productivity through technology and equipment also gave us the cutting edge in quality and reliability, which are extremely important in mass production units like ours.

Similarly, our inventory management system has been studied by many. We had not heard of terms like JIT (Just In Time), until people from Honda started visiting us in early the 80s for collaboration.

Hero Cycles' shopfloor in Ludhiana: Many a best practice has been born here

They started saying that the way we managed our inventory was very akin to JIT. Ours was out of compulsions of cost. Our work in progress and store inventories as of today put together do not exceed two days. We produce only against order and more than half of the day's produce is dispatched the same day.

THE ACID TEST

We are going global and have worked hard for an international presence. We are the only bicycle supplier from India whose products are available on shop shelves in the UK, Germany, and many other countries. We recently signed a historic agreement for technical collaboration with National Bicycle Industries, Japan, makers of National and Panasonic brands, to manufacture high-end bicycles. Through this collaboration, we shall achieve a dream of every ambitious manufacturer: To supply his products to Japan, which is the ultimate test of one's quality. The collaboration will further strengthen our commitment to quality and an unending passion to think ahead of time.

CHANGING WITH THE TIMES

How will the Indian entrepreneur cope with the new environment of globalisation and what will be his success mantra? Unfortunately, I have no crystal ball to gaze into and, therefore, it is difficult to answer this question with any accuracy. But there are some simple rules that the entrepreneur should live by. For example, efficiency in whatever you do is critical to successful management. An eagle-eye on costs, the ability to stay in close touch with customers and change faster than what the customer wants you to are some other needs of the hour.

Equally important are ethics and values. In this age of instant information, the quality of corporate governance and transparency of operations will become an integral part of the brand equity. We have inculcated family values and modesty in approach with great care in all the members of our family and the organisation. I'm sure this will help them withstand the pressures of changing times. bt

THE DREAM TO PRODUCE A LITTLE MORE EVERY DAY HAS BEEN THE MANUFACTURING PHILOSOPHY BEHIND HERO'S STEADY RISE

BY NANDAN M. NILEKANI

CEO, PRESIDENT AND MANAGING DIRECTOR, INFOSYS TECHNOLOGIES

INVESTING IN HUMAN CAPITAL

THE FORCES OF GLOBALISATION AND TECHNOLOGY are continuously reshaping our world. The future will see increasing changes; the 21st century will be shaped by intellectual capital. In this 'knowledge age', human capital drives progress. In this context, people are any organisation's most valuable assets. More so, since success depends on the ability to recognise, learn, and assimilate changes quickly, and on bringing business value to the customers by leveraging the assimilated knowledge. At Infosys, we have realised that 'learnability' is critical for our success. Learnability is defined as the ability to extract generic inferences from specific instances and to use them in new, unstructured situations. Thus, an organisation's ability to continually identify, recruit, develop, and motivate its most precious resource, in an increasingly competitive and global marketplace, is a critical success factor. In this regard, it is important to recall what Jack Welch said about General Electric: "Globalisation has changed us into a company that searches the world, not just to sell or to source, but to find intellectual capital—the world's best talents and greatest ideas."

> WATSON WYATT'S HUMAN CAPITAL INDEX STUDY FOUND THAT SUPERIOR HR PRACTICES ARE LEADING INDICATORS OF INCREASED SHAREHOLDER VALUE. THUS, REAL INVESTMENT IN TODAY'S KNOWLEDGE SOCIETY IS NOT IN PLANTS AND MACHINES; IT IS IN PEOPLE.

For centuries, organisations have understood how to manage financial and physical assets, yet, only recently have they turned their attention to leveraging people as one of the strongest sources of competitive advantage. In this regard, human resources (HR) management is an integral part of an organisation's strategy. Watson Wyatt Worldwide, an international consulting firm, explored and correlated the HR practices and financial fortunes of 750 companies in Canada, Europe, and the United States in 1999, and again in 2001. The resulting Human Capital Index study found that superior HR practices are, in fact, leading indicators of increased shareholder value. Thus, real investment in today's knowledge society is not in plants and machines; it is in people.

The increasing integration of trade and financial flows have ensured that human capital is free to move to any part of the world. Our employees have global competencies, global opportunities, and consequently, global aspirations. Hence, today, the

VIVAN MEHRA

TO RETAIN TALENT, ORGANISATIONS NEED TO CREATE A COMPETITIVE ENVIRONMENT AND EMBRACE MERITOCRACY

most important challenge for organisations is to attract the brightest and the best talent.

A ROLE-BASED GROWTH MODEL

To attract, retain, and motivate professionals, an organisation needs to uphold the respect and dignity of each individual. Further, it is important to create a competitive environment. For this, we have to embrace meritocracy and push it relentlessly in the organisation. Mediocrity has no place in a successful organisation. In addition, each person should surround himself or herself with much smarter people. This will help you retain the best people. This also implies that rewards are based on performance rather than on experience and hierarchy. In this context, organisations will have to find ways to cope with the internal stresses that this will create. Hence, companies will have to devise new ways of building and leading teams in order to ensure teamwork and common purpose in the face of diverse rewards—financial and otherwise. Further, people should be rewarded in line with the value they create. To reward employees appropriately, organisations need to find ways of measuring and capturing this value. In its efforts to create a high performance work ethic, Infosys has recently transitioned to a role-based structure. All roles have been mapped to different job and personal bands. Further, career planning, growth, compensation, incentives, and training requirements will be based on these bands. The role-based structure provides an equitable framework for people-related decision-making based on contribution to business and value addition.

An important aspect of people management is to provide an 'enabling environment' for employees to work. This helps increase their productivity; increasingly, productivity is becoming the differentiating factor in the global marketplace.

DEEPAK G. PAWAR

Infosys' Bangalore campus: People are this company's most cherished asset

However, as Steve Jobs, CEO of Apple Computer, has said, you cannot mandate productivity, you must provide the tools to let people become their best. Towards this, at Infosys, we have spent significant resources in creating a quality work environment. Further, training is a critical aspect of providing an enabling environment. Training keeps employees updated, teaches them new skills and helps increase satisfaction. Further, it increases their productivity. This helps employees towards a fulfilling career. Moreover, to deliver better solutions to clients, it is necessary that the employees are competent and trained in the latest technological and managerial tools.

Today, thanks to globalisation, our customers, investors, and vendor-partners come from across the globe. The demands of a global stakeholder-base will require the creation of a new workforce. Consequently, a rising percentage of the workforce is made up of people across geographies. Hence, an important aspect of HR management today is to manage cultural diversity. Organisations have to devise ways to utilise a wide range of experiences, perspectives, preferences and styles in order to deliver value to its clients. A very important aspect of this is for the organisation to have a strong value system—a protocol for behaviour that enhances the trust, confidence, commitment, and enthusiasm of employees across locations and cultures. This builds the character of the organisation and ensures sustained growth. Further, this helps attract, retain, and motivate the best talent. Employees are drawn to work for such an organisation. Further, it will enthuse the employees to make bigger sacrifices, and thus, improve the bottomline. At Infosys, our value system can be summed up in our belief that the softest pillow is a clear conscience.

GOOD COMPANIES CREATE WEALTH, BUT GREAT COMPANIES CREATE WEALTH IN A SUSTAINABLE MANNER

IT'S ALL ABOUT COMMUNICATION

In addition, building trust and confidence requires an environment where there is open communication. The employees should know about the challenges and the risks that the organisation is facing. For this, we need to be transparent in our dealings with employees and need to have an open environment where the senior management shares its thoughts and beliefs with them, while at the same time taking their feedback. Infosys uses two categories of media to communicate internally and encourage debate around our policies. The first is the high-touch category, where members of the senior management meet in person with the employees (Infoscions) across all levels. In this category are live chats with senior management, town halls or open houses, and lunch meetings with members of the senior management. The second is the high-tech category where technology is leveraged to reach Infoscions spread across various locations or time zones. These include regular messages from the directors or practice heads. Further, you need to involve every employee in the progress and growth of the organisation. In this regard, Infosys was the first Indian company to institute employee stock option plans with widespread coverage. The objective of these plans is to share the wealth created by the company with its employees and, thus, involve them in the growth of the company. Today, the company has around 1,867 rupee-millionaires and 87 dollar-millionaires among its employees.

Finally, the most important aspect of HR management is that leaders should walk the talk. In the words of Socrates: "Let him that would move the world first move himself." Leaders have to demonstrate their belief in sacrifice, commitment, and hard work. Walking the talk helps win your people's confidence and makes them committed. Commitment is buying into the vision of the organisation and having the energy to support it. Thus, in terms of ethical business conduct, of social commitment and of adherence to a strong value system, the senior management should lead by example. This motivates employees and sends a strong message that good companies create wealth, but great companies create wealth in a sustainable manner while being fair to all stakeholders.

BY PIYUSH PANDEY

GROUP PRESIDENT AND NATIONAL CREATIVE DIRECTOR, OGILVY & MATHER

INDIAN ADVERTISING, UNIVERSAL APPEAL

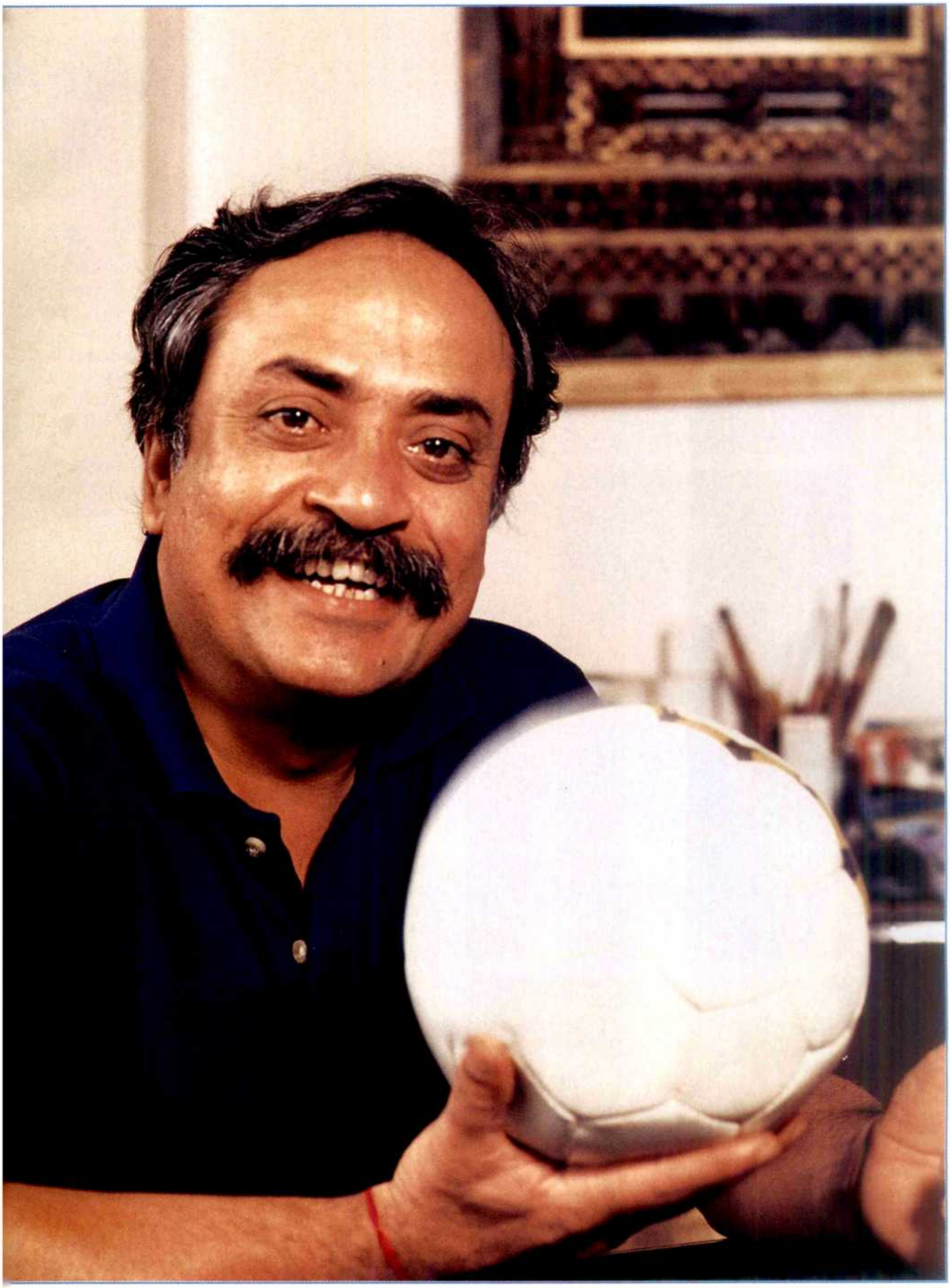
NOT TOO LONG AGO, ADVERTISERS DIDN'T TAKE THEIR viewers seriously: their emphasis was on thrusting just the kind of information on her that she didn't want thrust upon her. Today, things have changed. Emotions—any kind of emotion, even humour—have become a vehicle for communication. The focus is on getting the viewers to decode the message, rather than treat them like kids and spoon-feed them every step of the way. To my mind, that's a fundamental shift. It isn't complete, but is definitely one in the right direction. Thanks to the use of emotions, some Indian advertising is universal in its appeal, just as some is niche, befitting a country as large as ours.

> RESEARCH HAS SHOWN SOME ADS CREATED IN INDIA TO BE MORE EFFECTIVE THAN THOSE CREATED IN COUNTRIES LIKE MALAYSIA AND THAILAND. WE SEEM TO HAVE MOVED UP A GEAR, FROM PRODUCT-FOCUSSED COMMUNICATION TO CONSUMER-FOCUSSED COMMUNICATION.

THE CHANGING SCENARIO

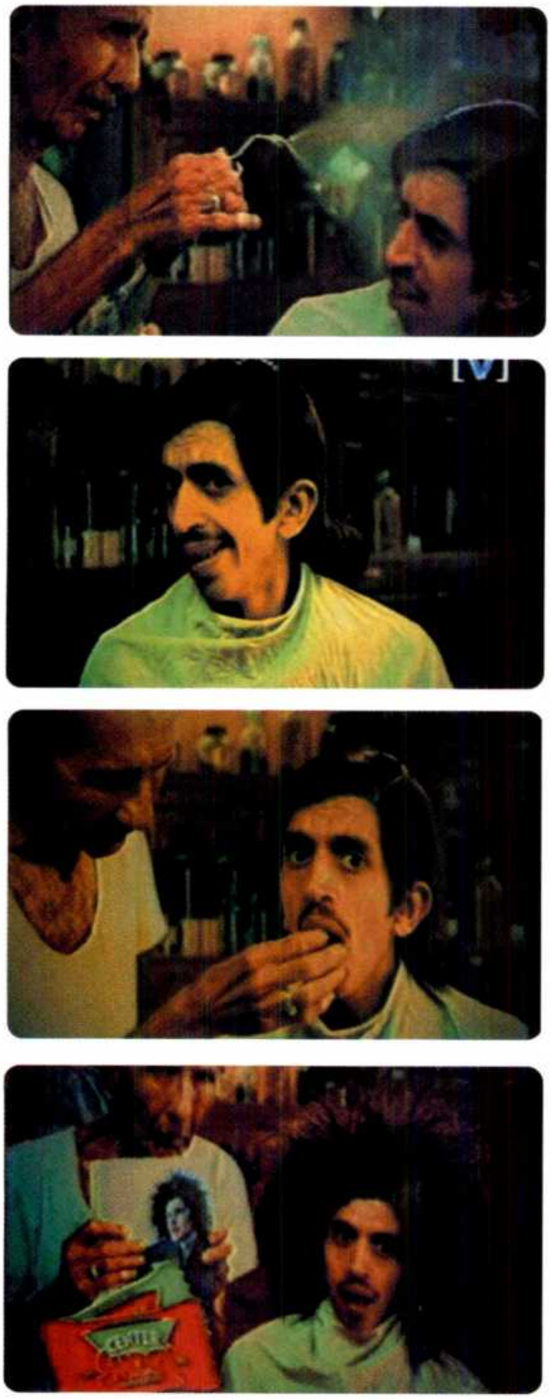
Some of the advertising created in India for brands like Centre Shock and Mentos, currently runs in other markets. Research has also shown other ads created in India to be more effective than those created in countries like Malaysia and Thailand. We seem to have moved up a gear, from product-focussed communication to consumer-focussed communication, giving Indian creative professionals the opportunity to prove their worth internationally. In my book, that's another shift.

I believe we are at the threshold of an era of creative explosion: India will soon be exporting creative advertising much like it exports software. It is up to us to grab this opportunity. As recently as 10 years ago, India was classified a developing nation in terms of advertising; all its ideas allegedly came from the West. Today, it is considered the source of great advertising talent. The fact is that talent has always been one of our strengths; only, in the absence of the right breaks, this talent has often



SANJAY PANDYA

COST IS JUST ONE FACTOR; THE WORLD RECOGNISES THE INDIAN ADVERTISING INDUSTRY AS A VALUE-PLAYER



Centre Shock: The ad rocked international markets

fled to the West or to the South East.

Today, with Indian advertising waiting in the wings to enter the ranks of the First World, chances are, we should be able to retain this talent. Earlier this year, Singer International hired O&M, Mumbai as its ad agency in seven countries. O&M Mumbai has also been commissioned to create a TV commercial for Golia Activ Plus, a leading confectionery brand from Perfetti Van Melle, for the Italian market.

We are fast moving beyond the sub-continent. Now that's a big change. Expectedly, we have been able to attract talent well beyond the standard repository of the four metros that wants to work in advertising. Young people are looking at advertising as a career and the industry is being enriched in the process. At O&M, we have a metallurgist, a hotel management graduate, and a pharmacist—all creative directors. I am sure other agencies have similar people. The more diverse the talent we attract, the better our advertising becomes.

Even when it comes to recruitment, some people complain that agencies no longer visit the best management schools to recruit. That's good. I think we should look to enrich the brand experience, not just reinforce or replicate what's already there. Our clients hire the best management students. We have to add to that. We have to bring to them the perspective that none of their employees can. Ours is the business of ideas and the more sources we tap, the higher the chances that our approach is fresh, as opposed to predictable. This broad basing of talent is the third significant shift I see happening around us.

Finally, speaking of the production front, you won't believe the number of agencies and brands that come to India to shoot their ad films. There is no better place on earth in terms of breadth of cultural richness. That's always been the case; if people didn't consider India as a viable location in the past, it was because it lacked technology and infrastructure. Today, we can match the finest agencies in the most developed nations in terms of technology and infrastructure. Even on costs, the world recognises the Indian advertising industry as a value-player. There's nothing demeaning in that.

LEARNING TO CHANGE WITH THE TIMES

Let me restate the obvious: clients expect more from their agencies today. The past three years have been tough ones for the industry. Clients negotiate from a position of strength, and agencies would do well to better their expectations. In the present Indian advertising scenario, accounts change hands frequently; we have more or less escaped that, but that's no reason to be complacent. This is a business that needs to be lived everyday. You are only as good as your next campaign, your next account, your next big idea.

All businesses search for value. When the going gets tough, the quest gets more frenetic. Agencies that recognise this and are willing to make the required adjustments will be able to handle the pressure. Like several businesses, advertising too, is cyclical. If you can't cope with that, you're toast. Five years ago, the industry was clocking 30-40 per cent growth; that couldn't have continued and it didn't. We couldn't have changed that, but we could have anticipated it and planned accordingly.

There's also a lot of talk these days of fee-based compensation structures for agencies. That's not entirely a bad thing, as it can help agencies plan their lives better. Such structures aren't very easy to understand and we are all trying to learn how to live with them. There are some clients that wish to work on a commission basis and others that want a fee-based structure. We will have to work with both types.

Indian agencies have been quick to offer specialised services that they think their clients need.

INDIAN AGENCIES HAVE BEEN QUICK TO OFFER THE SPECIALISED SERVICES THEIR CLIENTS NEED. IT IS IMPORTANT TO OFFER DIVERSE SERVICES

I think it is important to offer diverse communication services under the same umbrella. After all, a brand's communication needs are diverse and agencies that don't realise this will lose out on valuable business. Healthcare is a boom-in-waiting. Agencies would do well to launch specialised healthcare outfits and prepare for take-off. In general, agencies have to find newer, better ways to cater to the communication needs of brands.

I do not see too many changes on the media front in the next couple of years. I believe advertising still remains a business where mass media has a leading role to play. That will change, but slowly. The ratio of mass media advertising to others in the West is 45:55. In India, it is still 80:20. Still, 20 per cent is a significant proportion and we have to focus on learning to understand the dynamics of niche and innovative media. For instance, we have to learn the business of retail advertising. The percentages are still small, but as malls and supermarkets mushroom, things will change. We are actually quite fortunate to be part of a market where the order of the day is to learn, learn, learn.

In conclusion, I think India's growing importance in the advertising firmament is evident in the growing importance of several Indian advertising pros who are increasingly playing regional roles, the emergence of global opportunities for Indian advertising agencies and professionals, and recognition in terms of awards. This country is replete with fantastic talent. Brands are coming in by the dozen. All you need is the confidence to deliver, to just make it happen. bt

Rs 6 ONLY
Melle
mentos mint
The Freshmaker

The Mentos ad: Unusually cool

BY ASHVIN PAREKH

EXECUTIVE DIRECTOR, DELOITTE TOUCHE TOHMATSU (INDIA)

THE FUTURE OF INDIAN BANKING

THE INDIAN BANKING SYSTEM has had a few significant achievements in the past three decades. One, it has been closely connected to the nation's development efforts. Two, it has built a substantial reach and acquired one of the largest and most diverse customer bases in the world. And three, it has developed inefficiencies arising out of almost assured interest spreads and rigidities in its micro management.

> THE PAST FEW YEARS HAVE SKEWED THE POSITION OF BANKS WITHIN THE FINANCIAL SYSTEM, PRIMARILY BECAUSE OTHER SECTORS HAVE NOT BEEN VERY COMPETITIVE. THE QUALITY OF ASSETS AND SKILLS NEED TO BE IMPROVED IF THE BANKING SECTOR IS TO TURN VIBRANT.

The past few years have skewed the position of banks within the financial system, primarily because other sectors have not been very competitive. The logical question, then, is: What lies ahead for Indian banking?

WHAT'S NOT RIGHT?

In the domestic market, banks have made rapid strides in growing their reach. But at an international level, they are conspicuous by their absence. We have thus missed out an important opportunity to benchmark our performance against the best.

The quality of assets has been an area of major concern. It has impacted profitability and eaten away capital. Our banking system is unique with regard to its advance book-building, which is highly decentralised. The quality of the security behind it is examined only when the asset is procured and the risk management practices are weak.

THE OPPORTUNITIES

Non-performing assets (NPAs) are another issue that has drawn everyone's attention. The new Reconstruction and Securitisation Act is perhaps the best thing that could have happened to the banking system. The framework and the provisions of the new law are far-reaching. New instruments, including security receipts, and intermediaries, including asset management companies, valuers and liquidators will emerge to create a market for distressed assets. It is important that banks recognise this opportunity for rebuilding values that were eroded over the years.

WHAT NEEDS TO BE DONE

Adequate capitalisation and prudential norms is the next area of challenge. Our banking must continue to strengthen its prudential norms and align them with the international best practices. The major challenge in this regard is the aspect of capital adequacy. Since the introduction of

HEMANT PITHWA

the evaluation of capital adequacy under the Basel Accord, the size of capital to be introduced into Indian banking is very large. The government will have to examine both the overseas investor holding of equity in public sector banks as well as the aspect of voting rights in banking companies from a liberal point of view.

The banking system and the regulator have been voicing concern on the one-size-fits-all characteristic of capital adequacy norms under the Basel Accord. However, considering that risk management has not taken deep roots in our banking system, only a more conservative provisioning and capital requirement could be prescribed for it. Progressive banking companies have an opportunity to reduce their capital requirement by adopting integrated risk management practices. Transparency and disclosure practices are another area of challenge.

PROBLEMS AND SOLUTIONS

Despite several rounds of voluntary retirement programmes carried out by public banks, there is excess manpower in the system. There is a shortage of good banking skills and a substantial re-orientation programme is called for. Skills in the areas of information technology, treasury and investment management, risk management and recovery management need to be strengthened. Given these issues, the banking system's health continues to be as fragile as ever and has a long way to go in attracting investors. Finally, the Indian banking system will have to be prepared for the anti-money laundering regulations and their punitive implications for non-compliance.

BY G.V. PRASAD

EXECUTIVE VICE CHAIRMAN & CEO, DR. REDDY'S LABORATORIES

INNOVATION AND GLOBALISATION

THE INDIAN PHARMA INDUSTRY TRULY evolved only after the 1970's. Before that India was dominated by MNCs and the prices of drugs in India were comparable to international prices. In 1972, the Indian government passed the 1970 Patents Act, which permitted companies in India to develop and market patented drugs by developing different processes. Drug prices reduced significantly, and this new patent policy quickly spawned a strong domestic pharmaceutical industry.

> WE AT DR. REDDY'S ACTIVELY LEVERAGED OUR STRENGTHS IN SYNTHETIC AND ANALYTICAL CHEMISTRY AND REGULATORY EXPERTISE TO MOVE UP THE VALUE CHAIN AND SERVE CUSTOMERS OF THE HIGHEST VALUE AND MARKETS.

The 70s through to the 90s saw a spurt in the manufacture and export of active pharmaceutical ingredients (APIs) and finished dosages to the developing markets. The experience gained created a platform to enter the developed markets of the US and Europe. The reverse engineering of molecules began by leveraging the excellent chemistry skills of the Indian scientific talent pool.

From 1990 onwards, when a move towards the product patent regime started, a small clutch of Indian companies began to globalise and compete against global generic companies in the most regulated markets of the US and Europe, while building up their biotech skills and stepping into discovery research. Today, the Indian pharmaceutical industry services not just India, but global markets.

MOVING UP THE VALUE CHAIN

At Dr. Reddy's our starting value proposition was world-class skills in synthetic organic chemistry. We started as a bulk API company. Through our experience in India, we started tapping export opportunities in less regulated markets. And in the early 1990s, shifted focus to the US and other regulated markets. That's how we used the value proposition to evolve into a global provider of bulk actives.

We actively leveraged our strengths in synthetic and analytical chemistry and regulatory expertise to move up the value chain and serve the highest value customers and markets. We also started moving up the value chain building on our chemistry skills

B.K. RAMESH

through vertical integration into finished dosages (formulations). The transition from being a predominantly API company to being a formulations-led company took place in 1994. The business' initial phase revolved around building critical mass. The next phase was that of growth fuelled by acquisition and aggressive brand building. Between 1997-2001, the company acquired 19 brands, and its first company acquisition, American Remedies, to strengthen its portfolio.

The move into generics was not an easy decision. Aiming for the US markets called for large investment and a long gestation period fraught with significant risks. Leveraging the API advantage, we have built an exciting pipeline of high-value products providing a solid foundation for rapid growth in the near term. Even within the business of generics we moved up the value chain, to patent challenges and other exclusivity options, by quickly learning the fundamentals, and again, moving up the value chain.

The current successes and the strengths that we have built up in our core businesses of APIs, branded formulations and generics will provide the launch pad for the next wave of growth. The next wave will be fuelled by innovative products in the specialty segment and new chemical entities. Over the next few years, we will focus on driving growth in our core businesses, to strengthen our cash flows to support investment needs, especially in drug discovery, specialty, and building the commercial front-end in our key markets. This will enable us to change from a diversified emerging generics player to a discovery-led global pharmaceutical company.

WE WILL FOCUS ON DRIVING GROWTH IN OUR CORE BUSINESSES TO TRY AND EMERGE AS A DISCOVERY-LED GLOBAL PHARMACEUTICAL COMPANY

Constantly refining and improving the value proposition, developing additional competencies, and moving up the value chain has been the theme at Dr. Reddy's. If you see the progress of successful companies anywhere, you will see this pattern. Starting with a strong value proposition, driving operational excellence, and finally, moving up the value chain.

INNOVATION, ENTREPRENEURSHIP, AND GLOBALISATION

Each of the three themes played a very significant role in the evolution of Dr. Reddy's into a world class emerging pharmaceutical company.

Entrepreneurship is about improving the yield dramatically on resources. A strong entrepreneur sees what can be done with limited resources and takes it to a very high yield. It is also about doing the right things at the right time. The company was started in this spirit of entrepreneurship by Dr. Anji Reddy as a bulk actives player. After that, the timing of decisions to move into new businesses, or, evolving the business model to meet global business opportunities ensured our progress. Having a good sense of what the customers will want, combining that knowledge with technology, and creatively leveraging resources make all the difference.

Innovation has been a consistent theme in whatever we do. Not only in terms of our technologies, but even in our business model and our work processes. Innovation is when we creatively combine resources to achieve much better results than we normally think is possible with the same resources.

Innovation is not the domain of scientific research only, where product development and product innovation is paramount. Innovation is important in every aspect of running a pharmaceutical company.

Globalisation: Globalisation is imperative for any company operating in a small domestic market. Aggressive expansion internationally leverages a company's assets to create growth.

At Dr. Reddy's, we always saw where the opportunity lay. We went into Russia at a time when the market was a central economy, and continued to build the business as the country transitioned to a market economy. We continue to evolve our business model as the country reforms its medical system. Similarly, we started in the US much earlier than anybody else, except Ranbaxy. Considering our small size when we went to the US market it appeared to be a risky move, but the move paid off and the US market is one of our key growth drivers. As a result of our global efforts, over 60 per cent of our revenues come from outside the Indian market. We are also building local sales forces in five key global markets.

In globalising, especially in the pharmaceutical industry, there are variations in the regulatory environment and regulatory mechanisms, IP laws and technology issues which are specific to each country. Navigating all this in a highly regulated environment requires painstaking application, detailed knowledge, expertise, and tenacity.

OPERATIONAL EXCELLENCE

Moving up the value chain, using entrepreneurship, innovation and globalisation has propelled our growth and business model. A constantly evolving business model has helped this transformation. However, any strategy can be copied and in a few years the head start can be lost. The only way to attain sustainable competitive advantage is to keep improving everything you do, every day. Our vision for our operations is to be the lowest in terms of cost, highest in terms of quality, and most time-efficient pharmaceutical manufacturer in the world. Every member of Dr. Reddy's is encouraged to contribute to the achievement of this vision.

BUILDING SUSTAINABILITY IN BUSINESS

To build sustainability into business, it is necessary to upgrade institutional building initiatives such as corporate governance, organisational philosophy and policies. And, create depth and diversity of management talent. Our actions in improving governance, articulating a clear philosophy, and designing progressive policies enhance the sustainability of our performance. Our network of leaders and highly talented employees add to this sustainability and also build organisational resilience.

Corporate social responsibility is another element of sustainability. We want to be a force for good in society and all our actions must not only stand public scrutiny, but also lead to social good. Our focus on improving our environment performance at all locations, our support to public causes, and the opportunities for voluntary work that the organisation provides to its members, reflect this concern.

THE NEXT WAVE OF PLAY IS INNOVATION OR DRUG DISCOVERY. IN THE NEXT DECADE, INDIA WILL EMERGE AS A DESTINATION FOR DRUG DISCOVERY

THE GLOBAL OPPORTUNITY: SELECT STRATEGY. EXECUTE WITH FOCUS

The pharmaceutical industry in India today faces a huge opportunity in terms of leveraging established skills in the disciplines of chemistry, biology, and pharmacology, in using the India advantage to make global impact.

This is among the few industries where we can proudly say that we are globally competitive and we have the requisite skills, knowledge, and the cost structure to really make a huge impact.

To be truly competitive, companies have to make their choices in terms of the space where they will compete and select their niche and drive excellence in execution whether one is looking at regulated markets, or whether one is becoming a low-cost producer, you have to make your choices. You can't be a low-cost producer, supply products to the first-world markets, and also dominate in the Indian market across all businesses. Trying to be everything to everybody is a prescription for disaster. Pharmaceutical companies must select their strategy carefully and execute with focus.

Discovery and research is not an easy journey. Everyone familiar with the name Dr. Reddy's knows about our research and discovery programme. At Dr. Reddy's our core purpose, our reason for being is to help people lead healthier lives.

However, it is most important to possess a business model that gives you regular and continuous cash flow to fund long-term business building such as discovery research. At Dr. Reddy's, we are fortunate enough to have several businesses which fund investments in our future. Maintaining that financial flexibility is also very important.

India has a strong advantage in terms of manpower. We have the ability to scale up on technical talent and India also has a good understanding of global markets. Indian industry can leverage all these strengths to make an impact on the global marketplace. The industry has unquestionably made the most of the potential in API and in global generics. In the next decade, India will attain global leadership in these segments.

But the next wave of play is without a doubt innovation or drug discovery. In the next decade, India will emerge as a destination for drug discovery. Multinationals will open their research centres here. Indian companies themselves will move up the innovation value chain and create their own products. Ultimately India will be a research hub for the global pharmaceutical industry. That is when we can say that we have truly arrived.

BY ASHWANI PURI

COUNTRY LEADER (CORPORATE FINANCE AND RECOVERY SERVICES), PWC INDIA

THE NEW MONEY EQUATION

CHANGES IN THE BUSINESS environment of the past decade have significantly impacted how Indian companies raise and service funds. Perhaps, the single-biggest phenomenon of the 90s was the rapid rise and the equally rapid fall and subsequent stagnation of equity markets.

The abolition of capital issue controls and the entry of private mutual fund players and FIIs into the Indian equity markets led to rapid growth of equity markets, particularly in the initial five-to-six years of liberalisation in the early 90s. Due to the new-found freedom in equity pricing and increase in cost of debt (as development financial institutions now had to raise resources competitively), many Indian companies came to prefer equity as a means of fresh finance.

Stocks were often issued at a premium to face value, and this led to a significant decline in debt/equity ratios of Indian companies till mid-90s. However, the huge losses suffered by retail investors because of the unwarranted premium led to their general disillusionment with equity markets and mutual funds investing largely in equity. Funds raised by Indian companies from the primary market have declined or stagnated since 1995, as has the pace of decline in debt-equity ratios.

Not withstanding the recent upsurge in the equity markets, only corporates with good track record are expected to raise money successfully through issue of shares.

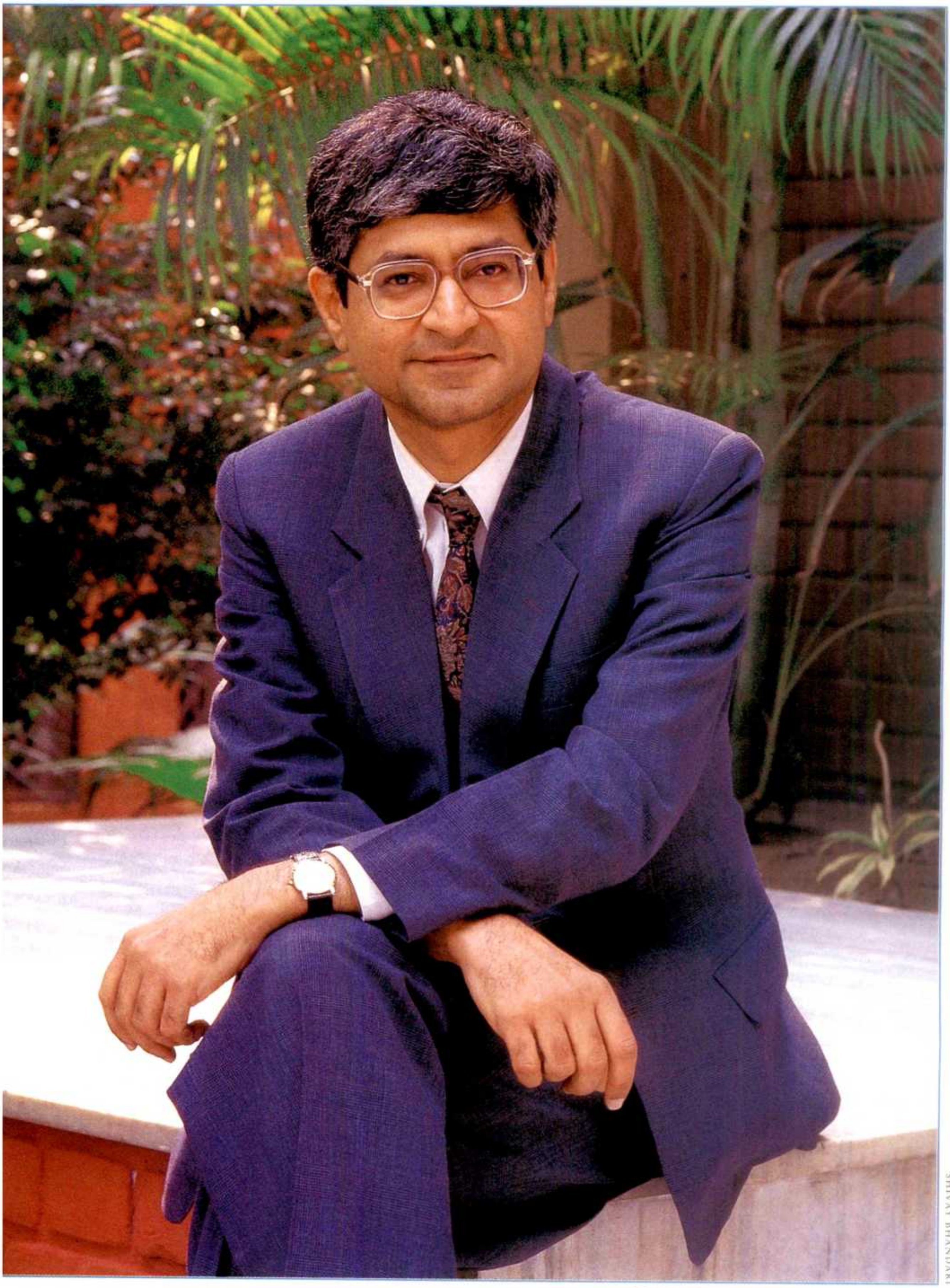
CHANGING NATURE OF DEBT

Given the increased competition and higher business risks that Indian companies are now exposed to, they have been trying to reduce their loan servicing commitments. The reduction in interest rates in India and globally, particularly since 1999, has provided an opportunity to Indian companies to bring down their funding cost. Many companies have accordingly undertaken refinancing of their existing debt to lower their interest cost.

Further, Indian companies have also been able to improve their cash flows through reduction in working capital levels and more efficient utilisation of fixed assets, particularly over the last four-to-five years. The resultant additional cash flows available to Indian companies has often been used to further reduce debt levels.

As a result, interest cost as a percentage of sales and EBITDA for Indian companies has been on a decline over the past decade. This decline is more no-

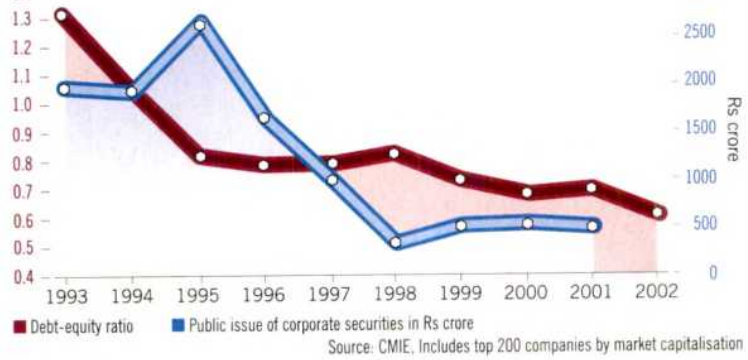
THE REDUCTION IN INTEREST RATES IN INDIA AND GLOBALLY, PARTICULARLY SINCE 1999, HAS PROVIDED AN OPPORTUNITY TO INDIAN COMPANIES TO BRING DOWN THEIR FUNDING COST. MANY HAVE CHOSEN TO REFINANCE THEIR EXISTING DEBT TO LOWER THEIR INTEREST COST.



SHIVAY BHANDARI

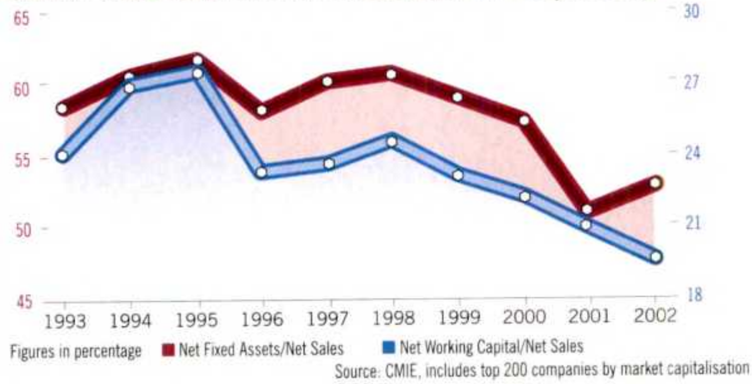
FUNDS RAISED BY INDIAN COMPANIES FROM THE PRIMARY MARKETS HAVE DECLINED OR STAGNATED SINCE 1995

Equity Markets Are Losing Lustre



Source: CMIE. Includes top 200 companies by market capitalisation

Cash Flows And Asset Utilisation Are Improving



Source: CMIE, includes top 200 companies by market capitalisation

GRAPHICS BY PINAKI PAUL

ticeable when compared with sales since profitability itself has been under pressure.

Until mid-90s, the Indian companies relied largely on term loans to raise debt, but with the development of the debt market, there has been a process of disintermediation. While securities issued by central and state governments and their bodies dominate this market, corporate sector's participation (including financial institutions, public sector and private corporate sector) in the market is also rising, with a current estimated share of 25 per cent. Bonds by nature possess inherent flexibility to facilitate creation of a variety of instruments with different risk and liquidity profiles.

Many Indian companies have, therefore, adopted innovative techniques to raise money from the bond market and are able to raise debt in this market quickly, typically through private placement.

However, most of the corporate issuers in this market have been AAA and AA-rated companies, though innovative credit enhancement mechanisms have been used by other companies to efficiently raise funds from this market. Liquidity in corporate debt instruments, which has been of concern, has shown an improvement particularly due to significant dematerialisation of corporate paper. The corporate debt segment of this market is, therefore, expected to grow significantly in future.

Historically, the major long-term debt providers to Indian companies have been the development financial institutions who provided term loans. These institutions (who earlier had easy access to low-cost funds) now have to compete for raising funds and are more accountable to their fund providers.

Further, the entry of new private sector banks, changing attitudes of state-owned banks and the increasing role of foreign banks is also changing the complexion of this market. While loan providers have become more flexible with respect to the modalities of fund raising and the nature of collateral, they are also more aggressive vis-à-vis recovery of their dues. This is a major factor that has influenced the fund raising plans and servicing thereof by Indian companies.

Pre-1991, Indian companies that were unable to meet their debt service requirements had historically requested lenders for moratorium on loan repayments, reduction in pre-agreed interest rates, or conversion of debt into equity. While pre-1991 such reliefs were easily granted, the more

WHILE LENDERS HAVE BECOME FLEXIBLE ON FUND-RAISING AND COLLATERAL, THEY ARE NOW AGGRESSIVE ABOUT RECOVERING THEIR DUES

demanding attitude of the lenders now has caused many companies to undertake internal improvement measures such as operational improvements, closure or disposal of non-core and loss-making businesses and surplus assets before seeking financial restructuring.

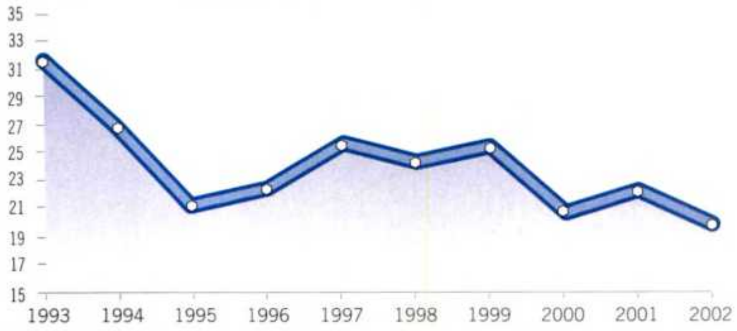
Notwithstanding the growing aggression of debt providers, lenders have typically complained of inadequate leverage against borrowers on account of difficult legal remedies available to enforce their security interests in the event of default by borrowing companies.

The SARFAESI Act, among other things, empowers lenders to seize and sell security without needing to go through complicated legal routes. While this is likely to make Indian companies undertake greater due diligence of risks while making an investment, it is also likely to reduce the cost of debt by unlocking the capital tied up in Non-Performing Assets and a general lowering of risk perception amongst Indian lenders.

To sum up, it can be said that the Indian companies now better appreciate the risks involved in raising and deploying funds. They are, therefore, attempting to keep their loan servicing commitments within manageable levels, and subjecting their investment decisions to greater scrutiny. The lending market in general is becoming more innovative and demanding, and only the best corporates will be able to effectively tap the capital markets. bt

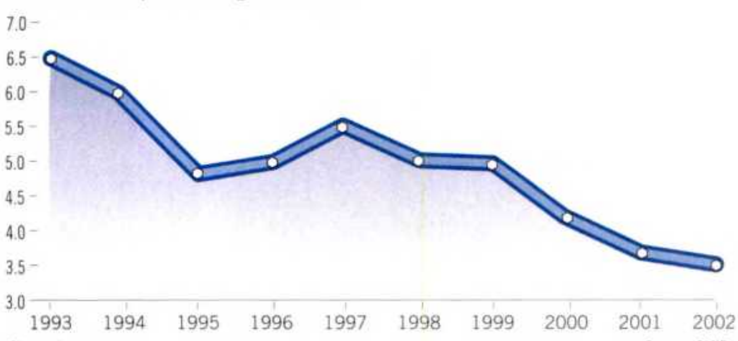
Interest Burden Has Declined...

...As a percentage of profits



Figures are interest costs as a percentage of EBIDTA

...And As a percentage of sales



Figures in percentage

Source: CMIE

INVERSE FLOATERS

Corporates like Grasim and Hindalco issued Inverse Floater bonds in 2002. Coupon on such bonds is the difference between a fixed rate and a floating rate and is inversely proportional to the general direction of interest rates. These bonds provide an opportunity to issuers to raise funds at cheap rates in a high interest environment and provide a hedge to the investor in a low interest rate environment. Often such bonds are issued when the issuer and the banks hold different views on the direction of interest rates.

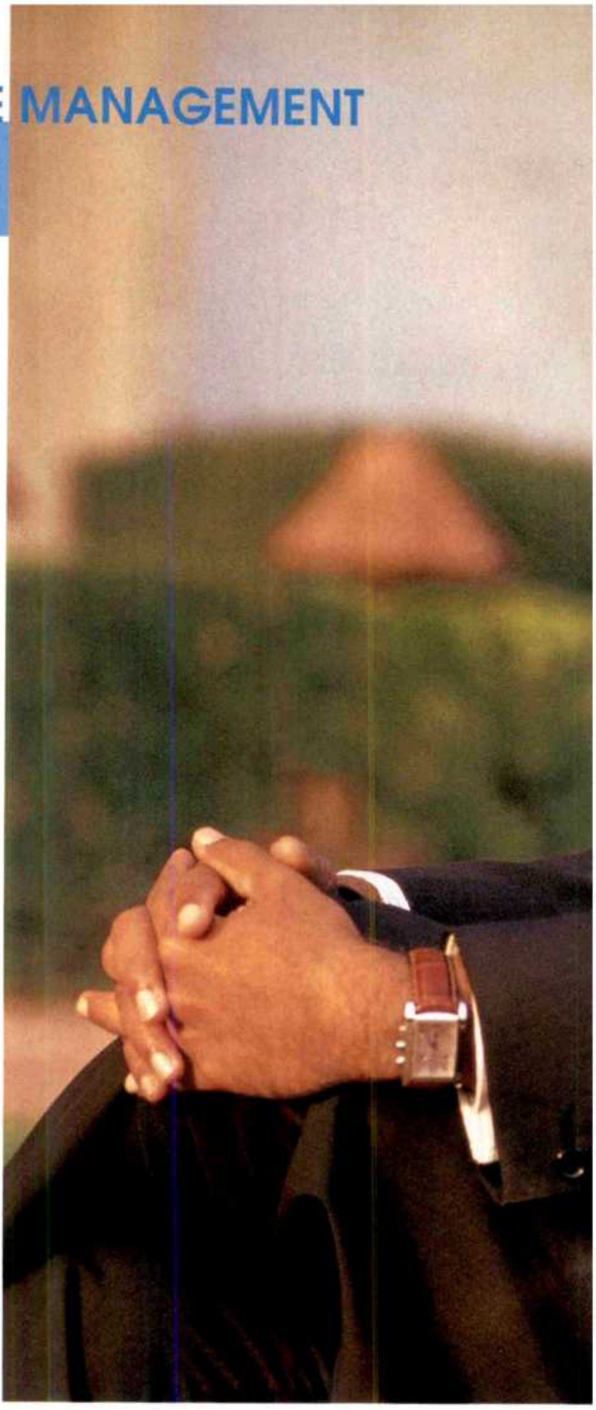
PARTIAL CREDIT GUARANTEE

In recent years, Ballarpur Industries Limited (BILT) and Bharti Mobile have issued domestic currency bonds carrying a partial guarantee from International Finance Corporation. Such credit enhancement arrangements helped enhance the attractiveness of these bond issues, while bringing down the cost of borrowing for these companies.

BY C. SRINIVASAN

CHAIRMAN, A.T. KEARNEY, INDIA

SKATING ON THIN ICE



WHAT'S WRONG WITH THIS PICTURE?

- "Sexy" segments like ITES are facing the cold, harsh reality of market and customer expectations and industry consolidation. The once-niche advantage of price enjoyed by Indian players has now become a commodity, and the likes of Infosys, Wipro, and Satyam have to scramble to deliver creative improvements in quality, productivity, and service. India's locational advantage can no longer be taken for granted, with threats from Russia, Philippines, and the like.
- Fairly sleepy industries like telecom have surged at a fast clip, skipping several stages of evolution and magically landing in the mature stage. Price competition has dramatically reduced usage rates, and value-added services like internet surfing are gradually being taken for granted. Major players like Airtel, Hutch, and Reliance have to constantly struggle to create innovative products and provide world-class service just to stay alive.
- Once-hot segments like FMCG have stagnated. The rural dream is yet to be fulfilled, and real prices are slightly down, resulting in a desperate scramble by Levers and their ilk to produce numerous brand variants and sub-segment the customer base in order to remain in the race.
- The crowded automotive industry shows signs of aggression by developing and launching a proliferation of product variants across all price points. The Maruti Esteem, for instance, was seen as a "CEO's car" five years ago, but is today affordable to young achievers. The increased penetration of cars has given rise to ancillary segments like car financing and used cars, and manufacturers have been spurred by customer expectations to produce sweet gains in service and care.

CHANGE MANAGEMENT IS ONE OF THE CORE COMPETENCIES OF GREAT ORGANISATIONS. IT IS AN ART FORM THAT IS SPECIFIC, AND REPLICABLE.

SHIVAY BHANDARI

■ Developments in traditional sunset industries like oil and gas are awakening sleeping giants like ONGC, IOC, HPCL, and BPCL to be more innovative and customer-focused. Witness the growth of the convenience store concept in petro-retailing, and overseas expansion (for example, IOC in Sri Lanka, ONGC in Russia and Sudan). Similarly, heavy industries like steel, led by companies like Tata Steel and the A.V. Birla Group, are surging, thanks to productivity improvements and management practices.

These lop-sided pictures will not fade away over the next five years—they will only get foggier. Increased competition will be the norm, with sectors like power and healthcare experiencing the rapid pangs of growth seen recently in telecom, and perhaps failing to cope with the pace of change. Customers will become more informed, demanding, and activist, and they will vote with their wallets. Employees will become re-skilled, with better knowledge and abilities and will demand more attention on issues such as career development, job rotation, and gender bias. Suppliers will become quasi-partners in your business, and will have all the rights and privileges of family members. The communities you live and operate in will demand

INCREASED COMPETITION WILL BE THE NORM WITH SECTORS LIKE POWER AND HEALTHCARE EXPERIENCING PANGS OF GROWTH

greater social and environmental responsibility and involvement from you. Regulators and *babus* will recede respectfully into the background, to emerge only when needed. Investors and the financial markets will rate your organisation's readiness for change as one of their investment criteria.

What are the two common denominators across these and other upheavals witnessed by Indian industry over the last five years, and the years to come? Change, and an organisation's ability to successfully manage it.

THE ART OF CHANGE

How do you cope with this madness?

India Inc. has traditionally struggled with this complex topic. The typical responses of many CEOs range from mandating change by edict or by changes to reporting relationships (example: effective January 15, the following managers will report to...), or launching a dazzling array of new initiatives (be it TQM, ERP, EVA, Six Sigma, PMS, or all of the above). Many senior managers are also victims of their cultural and educational backgrounds; CEOs with technical backgrounds, for instance, tend to view the world in an engineering algorithm of "black" or "white", and see people issues as "shades of grey" and too "soft" and, therefore, not worthy of their focus. To add to the complexity, change management is not a topic to be found in the curricula of most business schools. Hence, many CEOs find themselves terribly unprepared to deal with change. As one chief executive candidly admitted to me, "I wasn't smart enough about the people issues till it was too late."

Our global experience and research suggest that Indian CEOs are not alone: four out of the seven top causes of a business' failure (or nearly 60 per cent) to meet market or customer expectations involve human aspects of change. Also, we have seen that two-thirds of all global CEOs see employee resistance as the #1 block to organisational change. Similarly, a major global longitudinal study we conducted on M&A success indicated that well over half of all M&A transactions failed due to people and cultural issues, not technological issues.

EFFECTIVE CHANGE MANAGEMENT

To be fair, there is increasing recognition by senior managers in India of the role of change management in their overall job descriptions. While recognition is half the battle won, effective execution of change management helps win it all.

No matter how well motivated, an individual cannot make change alone. Management writers like Peter Senge and Tim Collins have repeatedly pointed out that effective change management is one of the core competencies of great organisations. Leaders must be the focal point of a well-orchestrated campaign to recognise and manage change. Through our work with clients, we have discovered that effective change management is an art form that is specific and replicable.

Great change masters generally follow a proven strategy: First, they "unfreeze" current, and perhaps dysfunctional behaviour. Next, they establish the new standards of the changed behaviour; and last, they "re-freeze" the chosen behaviours through conscious reward and recognition mechanisms.

Veteran change leaders also recognise that change management does not happen by osmosis, and that it generally cannot be mandated. Employees, customers, suppliers, and other members of an organisational ecosystem need to be coached through an emotional cycle of change that most organisations invariably experience: from "uninformed optimism" (certainty) to a downward curve of "informed pessimism" (doubt), and touching bottom at a "determination and commitment" stage (or simply giving up). Those organisations that don't give up then rise up the curve with "hopeful realism", and "informed optimism" (confidence) and finally, satisfaction. This coaching is typically in the form of structured interventions at various levels of the organisation, and the whole set of interventions are part of a larger campaign that is treated with the seriousness of a core business project.

INGREDIENTS OF CHANGE

We have found that the successful recipe for change requires five key ingredients:

1. **A clear and common vision to motivate and inspire:** This is not necessarily the obligatory

vision statement that lies framed and unread in conference rooms, but a challenging aspiration co-created by, and thus shared by, the members of the organisation—one that becomes a nodal point and rallying cry for the organisation.

2. **Leaders that are committed to change and lead from the front:** Leaders must "walk the talk"; there is simply no substitute in this game. "Start without me" is a management philosophy that may lead to disaster. Your constituents will be looking carefully to see whether you lead by example and have "enough skin in the game". They take their cues from you. If you are simply going through the motions, so will they.

3. **A sense of urgency:** The organisation and stakeholders need to know what the compelling reasons for change are. Leaders need to convincingly answer the question: "why should we change?" in order to move people away from the *status quo*. Most stakeholders are mature enough to see and respond to the stark realities when presented to them in this fashion.

RAJAT BARAN

TWO-THIRDS OF ALL GLOBAL CEOS SEE EMPLOYEE RESISTANCE AS THE #1 ROADBLOCK TO ORGANISATIONAL CHANGE

4. **The internal capabilities to change:** Wanting to change without having the resources to do so is futile. One of senior management's key imperatives is to develop the internal people skills, knowledge, technologies, know-how, methods and metrics to manage change. An internal pool of trained change agents can blaze a trail through the organisation. Typically, we see management seeking out talented high potential employees who are not afraid to shake the tree to join this effort. In return, management must provide a safety net to these change agents to allow them to try radical departures from the norm.

5. **A crisp plan of action:** As the American philosopher Yogi Berra once said, "If you don't know where you are going, any road will take you there." The best efforts to manage change will be for naught if there is no blueprint or road map, with expected results, milestones, roles and responsibilities. Such a map will allow all players to follow a script for success.

We have also learned that making change happen is not exactly rocket science. There are tried and tested techniques that help change occur. For example:

- Explain why
- Identify the benefits
- Invite and answer questions candidly
- Solicit participation
- Avoid surprises
- Set standards, monitor behaviour, reward or punish
- Involve informal leaders in the organisation
- Recognise and reward efforts
- Over communicate
- Give and receive feedback

Perhaps the best advice on this subject was given by Mahatma Gandhi many years ago: "To become an agent of change, you must become change itself."

BY M.V. SUBBIAH

DIRECTOR, EXTERNAL RELATIONS & INNOVATIONS, THE MURUGAPPA GROUP

FAMILIES IN BUSINESS & THE BUSINESS OF FAMILIES

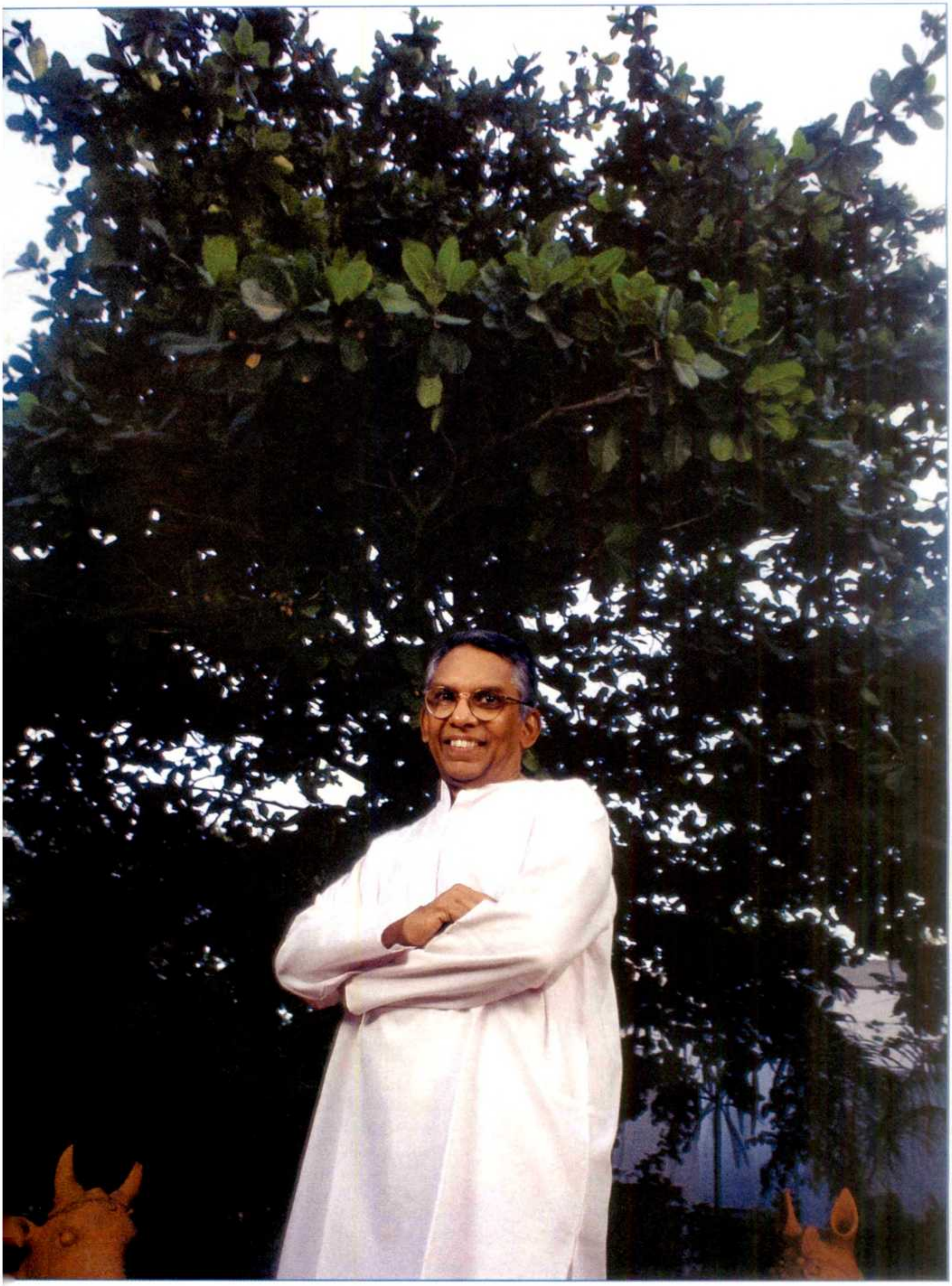
IT IS A WELL-KNOWN FACT THAT 60 PER CENT TO 70 per cent of any country's GDP is owned and managed by families in business. India is no different. From a small trader in Kanyakumari who runs a *paan*-shop or sells seashells to a large conglomerate created by that great entrepreneur of independent India, Dhirubhai Ambani, everyone's family is in business. These families account for 40 per cent to 50 per cent of the jobs in the country. This is true of any free society.

A SLOW BUT SURE BREAKING UP OF FAMILIES IN BUSINESS IS ON: BUSINESSES ARE DECLINING AND THE THIRD-GENERATION HAS INHERITED ONLY WEALTH, NOT SO MUCH THE VALUES OF TRUSTEESHIP OR STEWARDSHIP THAT HELPED THE BUSINESS GROW.

Families in business start with an entrepreneur who has the resources—financial or intellectual—and the aspiration to build an empire. The phenomenon starts small, and grows one step at a time. India has been fortunate: it boasts, arguably, the largest volume of irrigated arable land amongst any country in the world; despite that, Indians are entrepreneurial and intellectual, characteristics for which they are known all over the world. Generally, in a country where the land is fertile, people aren't inclined towards intellectual or entrepreneurial pursuits.

From a one-man show, such businesses grow into a one-family show. As the business grows, other immediate members of the family are brought into it. In cases where an idea and capital, resident in different individuals, have come together to create the business, both the moneyed partner's family and the ideal person's family get involved. As the business grows further it feels the need for more people and specialists to help it grow further, although the direction and the strategy still come from the founding partners.

During the first phase of its life, the business



BANDEEP SINGH

INDIA HAS A WEALTH OF ENTREPRENEURIAL ABILITY. THERE ARE NEW GENERATIONS OF ENTREPRENEURS COMING UP ALL THE TIME

grows from the early pangs of existence to survival, from survival to stability, and from stability to growth. The individual entrepreneur or the partners who started the business put in endless hours; they aspire to build the business. They have little time for the family, which is simultaneously growing: the founder or founders, if not married, get so, and beget children. These children rarely get to see their entrepreneur-father; the mother is the sheet anchor at home and imparts to them all the values best known to her.

After a few years of growth the business requires more time and attention. Customers and all other stakeholders look to the entrepreneur. He is the direction-setter, the owner, the manager and the salesman. The business may have grown, and it may employ several people, but everyone still expects the founder to be available. This puts tremendous pressure on the individual who has less and less time for the family. The young teenagers at home either hardly see the father or get to spend very little time with him at the breakfast or dinner table. The father often lavishes presents on the children to get over his guilt of not being able to spend time with them.

RAJAT BARAN

When the children grow up and wish to join the business, they realise the need for long hours and hard work themselves. To some extent, they are willing to put in these hours to grow the business. The father appreciates this additional help: the business is growing fast, and what better way to handle that than inducting your children into the business? Who better to trust. The children have, by and large, the same set of values as the father; under his guidance, the second generation carries on with the business and grows it. The father is happy and starts releasing the reigns of control, an inch at a time, but never totally.

In the meantime, the children get married and the grandchildren arrive on the scene. In the good old Indian joint family system it was very convenient to park the grandchildren at home with the grandparents and concentrate on the business, which required more attention as it grew bigger. The grandfather starts relaxing a little bit on business and spends a little more time at home overseeing his grandchildren. He begins to realise what he has missed out on and goes overboard indulging the grandchildren. Imagine what will happen to the grandchildren when they grow up and are of age to come into business?

What was originally, a partnership of siblings turns into a cousin-collaboration. The cousins have not seen the hard work put in by the grandfather, who is by now deceased. They believe it is their birthright to inherit the business. Invariably, their values are slightly different from each other's; their respective mothers have had an influence on this. Meanwhile, business has reached a maturity phase and starts declining. The whole process has taken 40 to 60 years. This is what is happening in India today.

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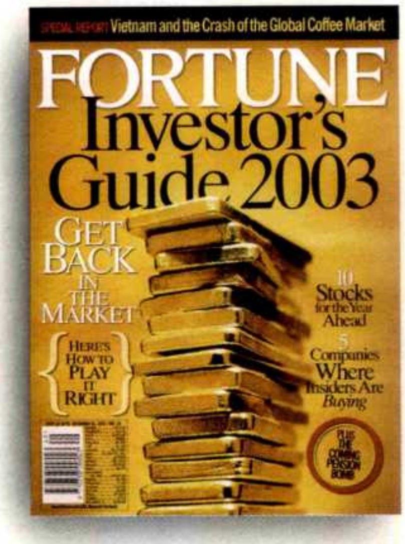

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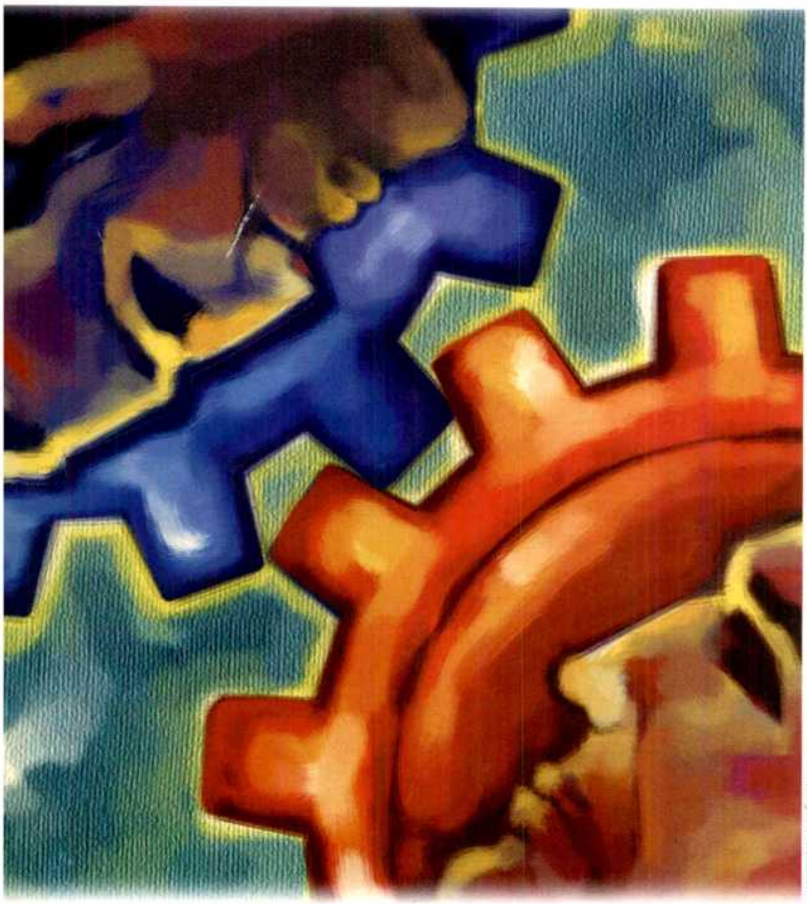
RAJAT BARAN

THE COMBINED EFFORTS OF BOTH THE FAMILY AND THE BUSINESS VISION CAN HELP THE FAMILY STAY TOGETHER AND THE BUSINESS GROW

FAMILY MANAGEMENT

Most family businesses in India began around the time of the country's Independence. Now, a slow but sure breaking up of families in business is on: businesses are declining and the third generation has inherited only wealth, not so much the values of trusteeship or stewardship that helped the business grow.

Fortunately for India, it has a wealth of entrepreneurial ability. There are new generations of entrepreneurs coming up all the time. And some older entrepreneurial families have seen the need to inculcate strong values in their members and have brought them up in an environment where values and stewardship matters more than ownership.

Ideally, therefore, one needs to have a revolution in the second and third generations of families in business. What kind of revolution? In businesses that are growing steadily one does plan a lot, be it strategic or tactical. One also spends a lot of time motivating people, trying to get them to commit to the philosophy, business vision, and long-term goals of the organisation. Why is it, then, that entrepreneurs who are successful at this fail when it comes to managing their family members, trying to get them to commit family values, family vision and family philosophy? Doing this, by spending equal amount of time and effort, is the key.

My belief is that this parallel planning process, as family-business experts John Ward and Randel Carlock call it, is the revolution waiting to happen in all families in business. This would mean that families in business invest substantial quality time, ideally in the presence of one or two unbiased outsiders whom the entire family trusts, framing their family-philosophy, family-values, and family-vision. The emphasis must be on instituting sufficient in-built processes that will take care of varied situations and train the younger generation. This requires time and commitment from every member of the family. And the family must put in place a process that helps it periodically revisit its defined vision and philosophy and make course corrections, depending on changes in the external environment. The earlier such a process starts in a family business, the better its chance of surviving the third generation.

I believe shared values are critical, be it in business or in families. Ideally, the entrepreneur who starts the business should establish the process of shared vision and planning in both the business and the family. Over time, this becomes part of both the organisation's and the family's the culture.

The two visions, the family vision and the business vision, are the things that link the two systems. The combined efforts of both can help the family stay together and the business grow. bt

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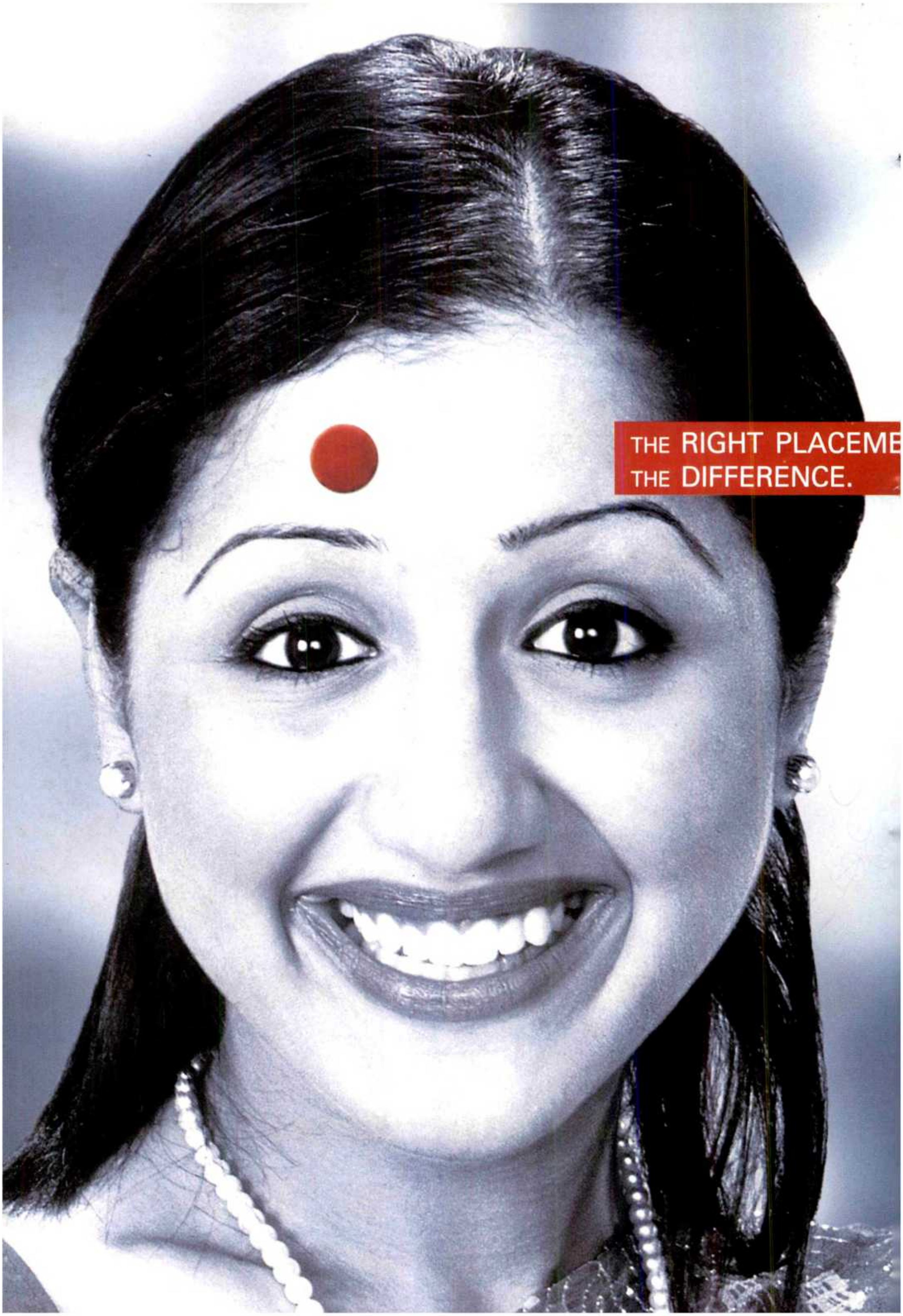
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Not very long back, MBAs evoked wonder, but not much awe. In the early 1990s, the rest of the world used to enjoy a shared laugh at USA's expense for the multitudes of Business schools (B-schools, for short) located there. It was another American quirk, people thought - like Apple pie, oblong footballs and cowboy holsters.

But by the end of the decade, every country was rushing to mint MBAs and set up B-schools. After a brief Japanese interlude, America was back in the saddle as the leader of all things business. By the time world history would record its first ever MBA as the world's most powerful man (George W. Bush is America's first MBA president), India would emerge as one of the world's most active zones of B-school proliferation. The reason: the MBA has become an object of awe.

The more reasonable reason, however, is that B-school education has been acknowledged by businesses as the ideal grounding for an ambitious career in management. In India, this phenomenon has got an impetus from the opening up of the economy, and the trend towards professional management. Family businesses are increasingly seen as an anachronism, and professionals are thought to be the right people at the executive helm of affairs. The burst of multinational activity has hastened the process. Running a business is a specialized task, best done by specialists educated for that very purpose.

In an MBA lies the modern day promise of meritocratic stardom. Any bright student from a household in the neighbourhood could grow to become the next Jack Welch, corporate jet and all. This, understandably, is the most alluring part of the great MBA dream. The chance to shape business and economic destinies, and be rewarded like royalty for it.

All that is very good. More the B-schools, greater the access of ordinary Indians to the possibility of corporate glory. But is this really the case?

The wanton mushrooming of B-schools need not translate into a better talent pool of business leaders. For the simple reason that a vast proportion of these B-schools are merely fee-grabbing outfits hoping to make a fast buck on the MBA mania that has gripped the imagination of India's youth. They are frauds.

Education, remember, is a serious business. It is a business, moreover, where the quality differentials are vast. What worsens the problem is that business education is a peculiar case of an education that sounds more like street sense than rocket science. It seems relatively straightforward to impart, as far as the 'syllabus' goes.

What's important to remember is this. Genuine success-oriented business education is largely about leadership. And leadership, by definition, is extremely rare. There are very few B-schools in India that display enough leadership themselves to be able to nurture global business leaders for tomorrow. Be picky. Very picky.

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Business Today does not vouch for any claims made by them.

After the slump that lasted for nearly three years on the trot, happy times, it seems, are back again for management graduates. If you happen to walk into a B-school campus, don't be surprised to find cheerful faces raring to make their mark in India Inc.

According to students and recruiters, the number of offers and the average salaries have gone up significantly. The average salaries at the top-rung campuses have gone up 18-20 per cent over the last year and at tier II schools the number is close to 10 per cent. And the other good news is that big ticket Wall Street firms such as Goldman Sachs, Lehmann Brothers and Morgan Stanley, who were rather reluctant recruiters in the last few years, were active again, mostly at top-rung B-schools. "In the previous two years, the placement process even at the best B-schools in the country extended to nearly 4-5 days, which was a huge change from the times when all the students got placed right after Day One. But this year, most top-rung B-schools wrapped up their placements in a day or two," says P. Dwarakanath, HR Head, GlaxoSmithKline. GlaxosmithKline recruited close to 20 graduates from the top B schools and was a Day One company at most campuses. For those who aspire to become MBAs in the coming years, that should be motivation enough to make it to the *creme de la creme* of Indian B-schools. According to Gurdeep Hora, CEO, Synergy Consultants, one of Delhi's leading placement agencies, FMCG continued to be the most favoured sector. Banking and financial services and telecom made a strong comeback during the placements this year. But the aftermath of the bloodbath in the IT sector in the last couple of years still seems to weigh heavily on the minds of the graduates as the sector was still low down in the pecking order.

CHOOSING YOUR B-SCHOOL

Although institutes like the IIMs have strong competencies in all areas, there are many B-schools that are perceived to be strong in a particular area of business. If you think managing human resources is your calling in life, then XLRI at Jamshedpur or Tata Institute of Social Sciences (TISS) might be the institutes for you. The IIMs, NITIE in Mumbai and IIT Mumbai and Delhi score over the others when it comes to IT and systems. B-schools like IIFT and MICA offer further specialisation in the areas of foreign trade and advertising respectively. And if your dream is to work for multilateral agencies like IMF, World Bank or organs of the UN, an institute like IRMA could be your best launching pad. For those with substantial experience in the industry, the two-year-old Indian School of Business at Hyderabad offers an excellent alternative. Applying to B-schools can be a costly affair with the average cost of an application being nearly Rs 1,000. Hence, a little bit of strategy here too can come handy. Aspiring for the best B-schools is alright, but it is better make sure you have applied to at least one B-school that you are reasonably sure to get through. The B-school rankings and surveys published every alternate year by *Business Today* can also be a useful tool in selecting the B-school of your choice.

CRACKING THE CAT

Some believe the Common Admission test or CAT is the toughest competitive exam in the country. In 2002, a little over a lakh students took up the CAT, but out of that only a fourth are usually serious aspirants. There are hundreds of coaching institutes in the country that claim to offer exhaustive preparation material and coaching for CAT. The courses don't come cheap (the cost ranges from Rs 10,000 to Rs 20,000), there are plenty of pretenders who want to make a quick buck. So, go through the course material carefully and make sure the trainers are experienced.

"A net score of 70 and above is enough to ensure at least two-to-three IIM calls and the requirement for other B-schools is slightly on the lower side," says Chandrashekhar singh the Academic Head at Career-Launcher, a prominent MBA coaching institute. The key to crack the CAT, according to Singh, is not to get flustered by attempting to answer all the 150 odd questions but to pick just 80-90 questions that you are sure of. If you wonder why a B-school needs to test your brilliance with numbers, graphs and words to give you an admission, you are probably right. But actually, the CAT isn't too keen to test your math abilities, but to test how you can smartly manage time with the help of intelligent guesswork, common sense and a little bit of skill---all pre-requisites of being a good manager. Taking up two-to-three mock CATs conducted by various coaching institutes on an all-India level gives one a reasonably good idea of where he or she stands in the competition.

Sure. The competition is tough and the test hard to crack. An MBA degree from a good school, these days, is a pre-requisite for anyone who wants to enter the corporate world or rise rapidly. But a combination of perseverance, determination, quick thinking and a dash of luck can almost guarantee you a bright and challenging future.

A I M A
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CENTRE FOR MANAGEMENT EDUCATION

Add, Tel, Fax & E-mail.	Management House, 14, Institutional Area, Lodhi Road, New Delhi - 110 003 Ph.: 011-24617354 (4 lines) Fax: 91-11-24526689 E-mail: info-cme@aima-ind.org
Director/Dean	Prof. N.C. Patnaik
Placement Coordinator	Ms. Sumedha Chowdhry
Year of Establishment	1957
Number of In-house Faculty	11
Number of Visiting Lecturers on Panel	350
No. Of students enrolled currently	Five Thousand (approx)
Entrance examination Format	All India written test (for Prog. 1, 2, & 5 only) held at 40 centres in India & abroad
Venues for entrance examination.	At more than 45 Centres across the country (for PGDM, PGDITM & DBA only)

TOP 10 RECRUITERS

Last Year	This Year
CADD Services Ltd.	Sify.com
Sahara India Parivar	Reliance Infocom
Bharati Telecom	Touchtel
Coca-Cola	Ranbaxy
LG Electronics	Shoppers Stop
ICICI Bank	Spectramind
ABN Amro	ICICI Prudential
Indian Express	HSBC
Airtel	Dabur
Global Infoways	TATA Infotech

Courses Offered	Students Intake
1. PGDM	1400
2. PGDITM	300
3. PDP	200
4. ADP	50
5. DBA	80

Highest Salary Offered

Last Year	This Year
1.80 Lacs p.a.	2.00 Lacs p.a.

Lowest Salary Offered

Last Year	This Year
0.70 Lacs p.a.	0.72 Lacs p.a.

Average Salary

Last Year	This Year
1.25 Lacs p.a.	1.36 Lacs p.a.

Dates & Deadlines

Interview date: Between May-June & Nov-Dec
Issue of Application form: Oct-Dec, Apr-June
Date for commencement of course: Jan & July

MAT examination every year : Jan, May, Sep & Dec
Last date for submission of application form: (for Jan intake Dec 31, for July intake 30 June

ABOUT AIMA

The All India Management Association (AIMA) was created as the national Apex Body of the Management profession with active support of the Government of India and corporate sector. AIMA is intended as a cause group, a body to pool management thoughts in the country; a forum to develop a national managerial ethos; an organisation to facilitate the furtherance of the profession and its contribution to society. Today, four decades later, AIMA is recognised for its national stature, upheld by a broad base of 61 local management associations and two co-operating associations abroad. Its membership base includes over 30,000 professional individual members and 3,000 corporate organisations as institutional members.CME was the first to launch the programmes through distance learning mode in 1976 in India. It was the first to launch a sectoral specialisation programme in IT management (PGDITM) in 1994, and is the first to offer Doctorate In Business Administration.

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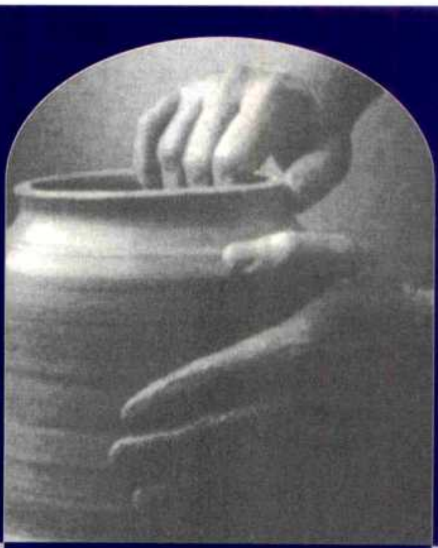
PGDM

POST GRADUATE DIPLOMA IN MANAGEMENT (Approved by AICTE, Ministry of HRD, Govt. of India)

Specialisations are offered in Human Resource, Finance, Operations, Marketing, International Business, Information Systems and Insurance Management

Duration: 4 modules of six months each followed by project work

Eligibility: Graduation & MAT Qualified



PGDITM

POST GRADUATE DIPLOMA IN INFORMATION TECHNOLOGY & MANAGEMENT

(Approved by AICTE)

Specially tailored for the requirements of IT Industry, PGDITM is highly sought after management programme by software professionals who wish to hold managerial positions.

Duration: 4 modules of six months each followed by project work

PDP

PROFESSIONAL DIPLOMA PROGRAMMES

Courses offered in the following areas;

- **Insurance Management (PDInr)***
  (Developed by National Insurance Academy, Pune)
- **Marketing Management (PDMM)**
- **Professional Diploma in Finance (PDF)**
- **Human Resource Development (PDHRD)** (In collaboration with Academy of HRD)
- **Electronic Commerce (PDEC)**
- **Information Systems Management (PDISM)**

Duration: One year

Eligibility: Graduation

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- **E-commerce**
- **Marketing Management**
- **Human Resource Development**
- **Enterprise Management**
- **Financial Management**

*These are high-end **'short term education'** programmes Structured for practising managers*

Duration: 6 months

Eligibility: Graduation/Post Graduation with minimum of one year work experience.

How to Apply

Prospectus is available on cash payment Rs. 300/- or by sending a DD of Rs. 350/- in favour of AIMA-CME, New Delhi.

* Regular programme (offered in Delhi only)

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Fax: 91-11-24526689 Internet: http://aima-ind.org E-mail: info-cme@aima-ind.org

SESSION BEGINS JULY 2003

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AKSON INSTITUTE FOR MANAGEMENT STUDIES

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Telephone: (080) 3532278 / 3532289 / 3544490
Fax: (080) 3432310 / 3433429
Email: aimsb@blr.vsnl.net.in
Website: www.aksononline.com

GENERAL INFO

Type of institute: Supported by Akson Educational Trust (Registered under a Govt. of Karnataka Act). Offshore partner in India for Sydney Graduate School of Management, University of Western Sydney, Australia.

Year of establishment: 1997

STUDENT BODY

Full-time graduates: Each batch consists of 25 students

Total graduate population: Two intakes in a year

ACADEMICS

Director: Jayashree K. Kumar

Faculty Full-Time (Nos): 18

Faculty Part-Time (Nos): 21

E-Library: Students can access University library and also 26 other worldwide libraries through round-the-clock e-library facility.

COURSES OFFERED

MBA (University of Western Sydney)

Executive Management Diploma (London College of Management)

Diploma in Business Administration (London College of Management)

ADMISSION PROCEDURE

MBA

1.Candidates intending to enroll for admission shall submit the prescribed application form duly filled in on or before the prescribed last date.

2.Students seeking admission should appear and secure an acceptable score (decided by the admission board) in any one of the following tests:

➢Akson Professional Aptitude Test (APAT)

➢Xavier Aptitude Test (XAT) - conducted on an all-India basis by XLRI, Jamshedpur

➢All India Management Entrance Test (AIMET)

➢CAT, MAT and GMAT scroes are also acceptable.

FROM THE DIRECTOR

The principal strength of the AKSON Institute of Management Studiees stems from the emphasis it lays on practical training coupled with sound theoretical grounding. This is made possible by a faculty who through experience and research have understood and mastered the nuances of current day management needs. We seek to give each individual globally competitive edge by enriching their values.

INSIDE THE CLASSROOM

With the batch strength not exceeding 25, the personal and constant interaction that the students have with their faculty gives a major fillip to the process of learning. A world-class curriculum coupled with the inputs by experienced professionals on values and ethics in business mould our students to face any challenge in their personal and professional lives.

RESEARCH & SEMINARS

The institute conducts seminars, workshops and guest lectures every week on a variety of themes. Through a range of practical activities, the students of all streams are made updated on the current business scene. Research activity under each subject sharpens the knowledge gained in the classroom. The 12-week industry live project gives the student the opportunity to conduct research in a scientific manner.

STUDENT LIFE

The institute seeks to inculcate in the students a crucial element of managerial excellence - a fine balance between teamwork and leadership.

The life of the students at AKSON Institute revolves around a number of extra-academic activities. A great opportunity to demonstrate one's initiative is provided to the students by a range of interaction clubs - in literary, cultural or any other type of activities - to hone their abilities and capabilities.

These activities prepare the students for the greater challenges that lie ahead - in life and at the workplace.

DATES & DEADLINES

Last date for issue of the application form: August 15 2003 (1st intake); March 1, 2004 (2nd intake)

Last date for submission of the application form: August 25, 2003 (1st intake); March 20, 2004 (2nd intake)

Written exam date: Will be notified

SUMMER PLACEMENTS

Top 10 companies

Ace Designers
Madura Garments
Dun & Bradstreet
Sami Labs
Coca Cola
Escorts Mahle
Unisoft India
Bharat Electronics Limited
Modi Xerox
Tata Tea

FINAL PLACEMENTS

Top 10 companies

Tata-AIG
GE Capital
ICICI Prudential
Airtel
Reliance Infocom
Easa Saleh Al Gurg, Dubai
Strides Arcolab
Aviva Life Insurance
Om Kotak Mahindra
Standard Chartered

Highest salary offered: Rs 6.5 lakhs per annum

Average salary offered: Rs 2.07 lakhs per annum

FEES

Tuition Fee: Rs.2,80,000

Hostel Fee: Rs.36,000 per annum approximately

SCHOLARSHIPS

Name of the scholarship: Akson Scholarship (1 for every 25 students)

Financial Aid to student: Rs.2,80,000

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Website: www.alliancebschool.org

GENERAL INFO

Type of School: Private un-aided; Affiliated to Bangalore University. Approved by Government of Karnataka and AICTE, New Delhi.

STUDENT BODY

Total Graduate population: 680

ACADEMICS

Director: Prof. Sudhir G. Angur
Dean: Prof. Naresh Kumar B. N.
Faculty full-time: 32
Faculty Part-time: 55
Computer Terminals for Student use: 170

COURSES OFFERED

1. Master of Business Administration (MBA)
2. Master of Computer Applications (MCA)
3. Post Graduate Diploma in Management (PGDM)
4. Post Graduate Diploma in Information Technology & Management (PGDITM)

ADMISSION PROCEDURE

Candidates will be short -listed based on either MAT/CAT/ATMA test.

Short-listed candidates are invited to the campus to attend Group Discussion followed by personal interview.

Final decision on admissions will be based upon past accomplishments, quality of essay (to be written along with the application form), performance in the aptitude test, performance in the GD and personal interview.

DATES & DEADLINES

Last date for issue of Application Form: February 6, 2004 (for admission to 2004 academic year)
Last date for submission: March 31, 2004.
Written Examination: as fixed for MAT/CAT/ATMA
Group Discussion: to be announced
Interview: to be announced

FROM THE DIRECTOR

Alliance Business Academy aims to provide students with a distinctive combination of academic excellence and professional relevance. We firmly believe that good human beings can contribute to the sum total of human happiness. Alliance, therefore, aims at providing not just education for a living, but also education for life. The institute strives to bring to its students not just knowledge but wisdom; not mere analysis but insight.

INSIDE THE CLASSROOM

Maintaining a high level of excellence requires the institution to be absolutely current in its course offerings. At Alliance Business Academy, extensive research on courses and contents are therefore done regularly in order to offer to students additional elective courses beyond what is stipulated by the governing bodies. Alliance brings the latest technology and the best faculty to its students. Alliance receives study materials such as cases and the latest computer software from all over the world.

RESEARCH & SEMINARS

The faculty at Alliance Business Academy believes in not only disseminating knowledge through excellent teaching, but also by constantly augmenting knowledge through an ongoing process of research. Alliance invites leading academics and industry professionals to share their perspectives with the members of the faculty and students. Such seminars and workshops on various aspects of business are conducted as frequently as once in six weeks.

STUDENT LIFE

Alliance Business Academy isn't all about lectures and examinations. Students are always encouraged to enjoy themselves and make friends during their stint here. The various clubs at the academy - the foreign languages, social, communication and marketing clubs, among several others - offer an extensive range of activities to the students. As the academy's students quickly discover, getting involved in these activities can be rewarding - both personally as well as professionally — as they prepare individuals for their future.

SUMMER PLACEMENTS

Total number of companies visiting the campus: 50

Top 10 companies

AMERICAN EXPRESS
McDOWELLS
PEPSI
BRITANNIA
LG
AFF
TATA HONEYWELL
WIPRO INFOTECH
COCA-COLA
MOTOROLA

FINAL PLACEMENTS

Total Number of companies visiting the campus: 55

Top 10 companies

COCA-COLA
TOSHIBA
LG SOFT
FABER CASTELL
DSL SOFTWARE
ABN AMRO
ASIAN PAINTS
GOLGATE PALMOLIVE
TATA HONEYWELL
HSBC

Highest salary offered: Rs. 4.8 lakhs per annum
Average salary offered: Rs. 2.36 lakhs per annum

FEES

Tuition Fees: Rs. 120,000/-
Hostel Fees: Rs. 33,600/-

SCHOLARSHIPS

Name of the scholarship: Sai Nath Trust Scholarship
Financial Aid to the University Rank Students: Full reimbursement of tuition fees is granted to deserving and meritorious candidates .

Alliance Business Academy

A Technology Management Institute

Bangalore

19th Cross, 7th Main, BTM 2nd Stage, N.S. Palya, Bangalore - 560 076.
Tel: (080) 668 1444 / 668 0324 / 668 0051 Fax : 6684137
e-mail : alliance@bgl.vsnl.net.in www.alliancebschool.org

Alliance Business Academy, Bangalore is a premier institution offering education and training in the areas of Management and Information Technology. Established in 1997 by the founders who are the alumni of the IIT and IIM, **Alliance Business Academy has been ranked amongst the top 50 B-Schools in the country in the recent COSMODE-BUSINESS TODAY Best B-Schools Survey, 2002.** ABA offers excellent opportunities for research and growth for its faculty through Faculty Development Programs and Focussed Training Programs.

ABA invites applications for senior faculty positions in the following areas :

- FINANCIAL MANAGEMENT
- HUMAN RESOURCE MANAGEMENT
- MARKETING MANAGEMENT
- COMPUTER SCIENCE, INFORMATION TECHNOLOGY AND INFORMATION SYSTEMS MANAGEMENT
- QUANTITATIVE METHODS
- PRODUCTION & OPERATIONS MANAGEMENT
- STRATEGIC MANAGEMENT
- ENGLISH & COMMUNICATIONS

FACULTY RESPONSIBILITIES

The faculty will design courses, teach in the post-graduate management & IT programs, mentor students, participate in individual and group research projects, conduct Executive Development Programs, undertake consulting assignments, offer Corporate Training in their areas of expertise and participate in institution building efforts.

QUALIFICATIONS : Ph.D in the relevant area of Management/IT with a first class Masters degree and at least five years of teaching/research/industry experience.

The institute is looking for brilliant individuals with good scholastic achievements and an aptitude for research, teaching and training.

SALARY AND OTHER BENEFITS

Salary and admissible allowances are as per the scales prescribed by the AICTE. Faculty members are allowed the privilege of consulting and training, the income from which would be shared between the faculty and the institute.

APPLICATION

Please send your application, complete with your resume and a latest passport size photograph to **The Director, Alliance Business Academy,** at the above-mentioned address. The institute will get in touch with only short-listed candidates.

AMITY BUSINESS SCHOOL THE NO.1 PVT. B-SCHOOL IN INDIA*

Admissions Office, Amity Campus,
Sector-44, Noida-201303
(Adjoining New Delhi)
Admissions Phone: 0120-2431463-66
(Dialling code from Delhi- 95120)
Fax: 0120-2431421
E- mail: admissions@abs.amity.edu
Website: www.amity.edu

GENERAL INFO

Type of School: Pvt. (AICTE Approved)
Year of Establishment : 1994

STUDENT BODY

Full-Time Graduates: 1550
Part-Time Graduates: 60
Total Graduates Population: 1610

ACADEMICS

Name of Dy. Director General:
Prof. Raj Singh
Faculty Full-Time (Nos.): 55
Faculty Part-Time (Nos.): 25
Computer Terminals for Student Use: 300

COURSES OFFERED

PG Diploma in Management - 2 Year Full-Time
MBA (International Management) - 2 Year Full-Time
PG Diploma in Management - 3 Year Part-Time
Bachelor of Business Administration - 3 Year Full-Time

ADMISSION PROCEDURE

Depending on the programme, the admission procedure includes a Written Aptitude Test, Group Discussion and Interview.

DATES & DEADLINES

Last date for issue of Application Form: October-December, 2003
Last date for submission of Application Form: December 2003
Written Examination Date: December 2003
Interview & Group Discussion Date: January-February 2004

SOME QUICK FACTS

- **Part of the Amity Universe - 20,000 students strong, 11 campuses wide, with 62 Post Graduate and Graduate programmes**
- **The First Wireless Campus in the country**
- **The First Associate Partner of University of Cambridge (Local Examination Syndicate) in India**
- **Organises regular corporate events like CEO's Forums, CEO Dinner Series, Seminars, Workshops and Industry Visits**
- **Over 200 CEOs and senior executives have visited the campus to share their rich corporate experiences, till date**
- **Has adopted a unique Industry Mentor Concept, wherein a group of students is assigned a mentor from the industry, to help create an understanding of prevalent corporate practices among students**
- **Has helped invite international 'Gurus' like Tom Peters - Global Management 'Guru', Sir John Frazer Robinson - International Direct Marketing 'Guru', Dr. Robert Kaplan - Prof. Harvard Business School and several other corporate luminaries to India**
- **Has played host to, or has been an academic partner to, over 70 seminars and conferences in the last academic year**
- **A faculty of distinctive academicians, thought leaders and distinguished professionals with rich industry experience**
- **Ensures individual care with its Mentor- Mentee concept, wherein a member of the faculty is assigned to a group of 6-7students**
- **Unique personality development modules to enhance emotional intelligence, business communication skills and group dynamics**
- **The state-of-the-art infrastructure includes a 600 seater hostel, for boys and girls separately with well appointed and comfortable rooms, a multi-cuisine restaurant, a complete health care center and an Olympic size track and horse riding academy**

*** As per Outlook-Cfore Survey, Sept. 2002**
(As per Industry Perception)

SUMMER PLACEMENTS

Total Number of companies visiting the campus: 50

Top 10 Companies

ABN Amro
Blue Star
Coca Cola
Hindustan Lever
ICICI Bank
LG Electronics
Ogilvy One - Singapore & New Delhi
Pricewaterhouse Coopers
Standard Chartered Bank
Volvo India

FINAL PLACEMENTS

Total Number of companies visiting the Campus: 176

Top 10 Companies

Amway India
ABN Amro
HDFC Bank
ICICI Bank
ICICI Prudential
Jubilant Organosys
LG Electronics
Peps,
Scotia Bank
TVS Motors

Highest Salary Offered: Rs. 8 lakhs per annum
Average Salary Offered: Rs. 3 lakhs per annum

FEES

Tuition Fees:
PGDM - Rs. 1.83 lakhs per annum
MBA (IM) - Rs. 1.83 lakhs per annum
BBA - Rs. 1.18 Lakhs per annum
Hostel Fees: Rs. 35,000 per annum

SCHOLARSHIPS

Over Rs 1 crore worth of scholarships for meritorious students.
For details, please visit www.amity.edu/scholarships

amity/'æmɪtɪ/ *n.* friendship. [Latin *amicus* friend]

A Business School is not just about case studies and presentations. But also about making friends for life...

At Amity, you not only make lifelong friends with future Managers, but also with Lawyers, Engineers, Journalists, IT professionals...

In the corporate world of today, your network of friends plays a very major role. To a large extent, friendships forged at school and college are the only long lasting ones. That's why, it's important to study in an institution which has really dedicated, ambitious and exciting people, seeking excellence and success in life.

At Amity, as compared to stand-alone Business Schools, you'll not only be interacting with just a few hundred students of the Management world, but also with over 20,000 budding Biotechnologists, Psychologists, Advertising, IT, Telecom, Insurance, Hotel and Tourism professionals... Nurturing lifelong relationships with the corporate leaders of tomorrow.

AMITY
BUSINESS SCHOOL
An Institution of Ritnand Balved Education Foundation
ABS

The No.1 Pvt. B-School in India

* As per Outlook-*Cfore* Survey, Sept. 2002
(As per Industry perception)

AMRITA INSTITUTE OF MANAGEMENT

Address: Ettimadai (PO), Coimbatore - 641 105.
Telephone: (0422) 2 656 422
Fax: (0422) 2 656 274
Email:aim@amrita.edu

GENERAL INFO

Type of Institute: A constituent college of Amrita Vishwa Vidyapeetham, which is managed by Mata Amritananadamayi Math
Year of Establishment: 1996

STUDENT BODY

Number of students enrolled currently: 202

ACADEMICS

Dean: Dr. Sanjay Banerji
Placement Coordinator: Mr. S. Mohan
In-house Faculty: 21
Visiting Lecturers on Panel: 6

COURSES OFFERED

Post Graduate Diploma in Management
* Post Graduate Diploma in International Business
*Post Graduate Diploma in Hospital Administration
*Post Graduate Diploma in Agri Business Management
Fellow Programme in Management
(*Proposed with effect from the academic year 2004 - 2005)

ADMISSION PROCEDURE

Entrance Examination Format: Candidates are selected on the basis of their performance in the Common Admission Test (CAT) of the IIMs
Venue of Entrance Examination: CAT centres all over India

DATES & DEADLINES

Issue of application form:
July 14 - Aug 22/29 (CAT)
Sept/Dec: AIM
Last date for submission of application forms: CAT (Sept 12, 2003), AIM (Dec 31, 2003)
Written examination: Nov 23, 2003 (CAT)
Group Discussion & Interview:
March 22 to 27, 2004 (AIM)

FROM THE DIRECTOR

We are young and vibrant and have a keen desire to grow. We hope to meet a crucial need of today's business world by producing managers with a compassionate heart. We believe that managers exert great influence on the society. This is why Mata Amritanandamayi Math decided to start a B-school with a difference. Here we want to develop good human beings and good professional managers.

CLASSROOM ENVIRONMENT

Most classrooms at the Institute are equipped with networked computers and Internet access and audiovisual facilities like computer projection devices. Overhead projectors and camcorders lend excellent pedagogical support to the process of teaching and learning. Students are constantly encouraged to make full use of these state-of-the-art facilities for enhancing their presentation and communication skills.

RESEARCH & SEMINARS

Since 1997, AIM has been taking up management research and consultancy projects and assignments, both as part of an ongoing Institute-Industry collaborative process and the Institute's desire to develop new knowledge in the various areas of its endeavour. AIM has established a Centre for Management Development, which offers programmes on a national basis.

STUDENT LIFE

Students learn the most modern management concepts even as they are sensitised to the socio-economic realities of their environment. A harmonious blend of our traditional ethos and the advancements in management science is the main thrust of the Institute. Intake of tobacco in any form and any other intoxicants are strictly prohibited. The appeal of the campus is enhanced by serene location and modern amenities.

Commencement of Course: June 14, 2004

PLACEMENTS 2003

Top Ten Recruiters

Asian Paints
Allianz Bajaj Life Insurane
Citi Bank Financial Services
Cholamandalam Distribution Services
GE Countrywide Financial Services
ICICI Prudential Life Insurance
ICICI Bank
Philips
RPG-Food World
Sify Ltd.

Highest salary offered: Rs 2.85 lakhs per annum
Average salary offered: Rs 1.5 lakh per annum
Lowest salary offered: Rs 1.2 lakh per annum

PLACEMENTS 2002

Top Ten Recruiters

Aircel
ICICI Prudential Life Insurance
IBS Software
Modi Enterprises
Patni
Philips
Sundaram Home Finance
Techni Bharati Limited
Vallabhdas Kanji Limited
Videocon International Ltd.

Highest salary offered: Rs 2 lakhs per annum
Average salary offered: Rs 1.36 lakh per annum
Lowest salary offered: Rs 1.00 lakh per annum

FEES

Tuition fees: Rs 190,000 for two years
Hostel fees: Rs 20,000 for two years
(Additional mess charges: approx.
Rs 24,000 extra)

SCHOLARSHIPS

The plans for assisting needy students financially are under consideration and would be taken up on the merit of the case.

AMRITA
Vishwa Vidyapeetham
(Deemed University)

Admission
Notification

AMRITA INSTITUTE OF MANAGEMENT
(Managed by **Mata Amritanandamayi Math)**

for the **9th** **batch commencing on 14th June 2004**

Post Graduate Diploma in Management

The Institute : Autonomous and accredited by AICTE. Rated among the top 30 B-Schools of India (by Outlook - indiabschools.com survey : 2001)

Faculty : Qualified from IIMs, IITs, XLRI, STANFORD, KELLOGG, TEXAS, etc.

Curricula : Most up-to-date to meet industry and futuristic needs.

Library : Well-stocked and modern, with over 8500 volumes & international management journals on CDROM.

Placement : Well organised. Past students placed in reputed organisations.

Eligibility : Graduation (10+2+3) with minimum 50% aggregate marks.

Selection : Through COMMON ADMISSION TEST (CAT) conducted by the IIMs, followed by group discussion & interview. NRIs and foreigners with a minimum valid GMAT score of 550 can directly apply to AIM. Maximum six NRI/ Foreign candidates may be admitted through GMAT. Interviews will be conducted at Coimbatore, Bhopal, Kolkata and Hyderabad

Sponsorship : A maximum of six seats are reserved for Industry sponsored candidates who must take CAT and attend group discussion and interviews.

How to apply : *Appear for CAT. Apply to AIM. AIM application package will be available from September 2003 on payment of Rs. 750/- by cash or DD drawn in favour of "Amrita Institute of Management", payable at Coimbatore.

Last date for submission of AIM application is 31st December, 2003

**Our institute uses CAT for shortlisting the candidates for our two-year full-time Post Graduate Programme in Management. IIMs have no role either in the selection process or in the conduct of the programme.*

For AIM application package, please write to..

The Admission Co-ordinator
AMRITA INSTITUTE OF MANAGEMENT
Ettimadai, Coimbatore - 641 105, India. Tel: (0422) 656 422
Fax: (0422) 656 274 E-mail: aim@amrita.edu
Apply online or download the application form from **http:// www.amrita.edu/aim**

APEEJAY SCHOOL OF MARKETING

(A unit of Apeejay Education Society)
Sector-8, Dwarka Institutional Area,
New Delhi - 110 045
Ph:011-25363979-80
Fax:011-25363985
Email: asm.dwk.del@apj.edu

GENERAL INFO

Type of School: Private, recognised by AICTE & Accredited by NBA
Year of Establishment: 1993

STUDENT BODY

Full-time: 120
Part -time: 60

ACADEMICS

Director: Prof. Lalit Lal
Programme Director/Dean: Dr.T.N.Sindhwani
Faculty Full Time: 20
Faculty Part Time: 7
Computer Terminals for Student use: 60

COURSES OFFERED

2-Year Post-Graduate Diploma in Business Management (PGDBM) Full-Time
3-Year Post-Graduate Diploma in Business Management (PGDBM) Part-Time

ADMISSION PROCEDURE

Selection of candidates is based on:
High Graduate Scores
High MAT percentiles
Performance at Group Discussion & Personal Interview

DATES & DEADLINES

Last date for issue of application forms: End of January 2004
Last date for submission of application forms: End of February 2004
Written Test: Management Aptitude Test (MAT) is organised by All India Management Association (AIMA), New Delhi. MAT will be held in September and December 2003, and February & May 2004.
Group Discussion & Interview: Mid-March 2004

FROM THE DIRECTOR

Over the years, under the dynamic leadership of Dr. Stya Paul, President (AES), Apeejay has evolved into a symbol of quality education. Realising the strategic importance of Information Technology, each of our student is provided with a personal computer. We update our curriculum on a regular basis. Our PGDBM programme has been accredited by the National Board for Accreditation (AICTE), which is a testimony of the quality of the education provided by us.

INSIDE THE CLASSROOM

Our classrooms are air-conditioned and well equipped with modern teaching and communication equipments. Students are required to use these equipments for making their research presentations in the classrooms. Each classroom has a bulletin board for display of recent corporate happenings in India and abroad. Invariably, the pinned corporate news items form an integral part of cases and issues for class discussions.

RESEARCH & PUBLICATIONS

Apeejay Business Review, our research based publication, provides an effective forum for exchange of experiences, thoughts and perceptions among the academia and business society.

SEMINARS & MDPS

Frequent seminars and executive development programmes are organised to discuss and disseminate most recent developments in marketing and management. Our EDPs have been well received by the academia as well as corporate executives.

STUDENT LIFE

Within the busy academic schedule, students at ASM are given ample opportunities to nurture their creative potential so as to develop a well-groomed personality to be effective future managers. Social activities include Synergy, Parichay, Debates, and Contests. Students also take part in community services such as Tree plantation & blood donation camps.

SUMMER PLACEMENTS

Total number of companies visiting the campus: 60

Top 10 Companies

Asian Paints
Escotel
Hero Honda Motors
ICICI Bank
LG Electronics India
Maruti Udyog
Nestle India
Pepsi Foods
Sony India
Tata Chemicals

FINAL PLACEMENTS

Total number of companies visiting the campus: 45

Top 10 Companies

Berger Paints
Birla Sunlife
Dabur CGU
Godrej
IDBI Bank
LG Electronics India
Reliance Infocomm
Tata Infomedia
Titan
Torrent Pharmaceuticals

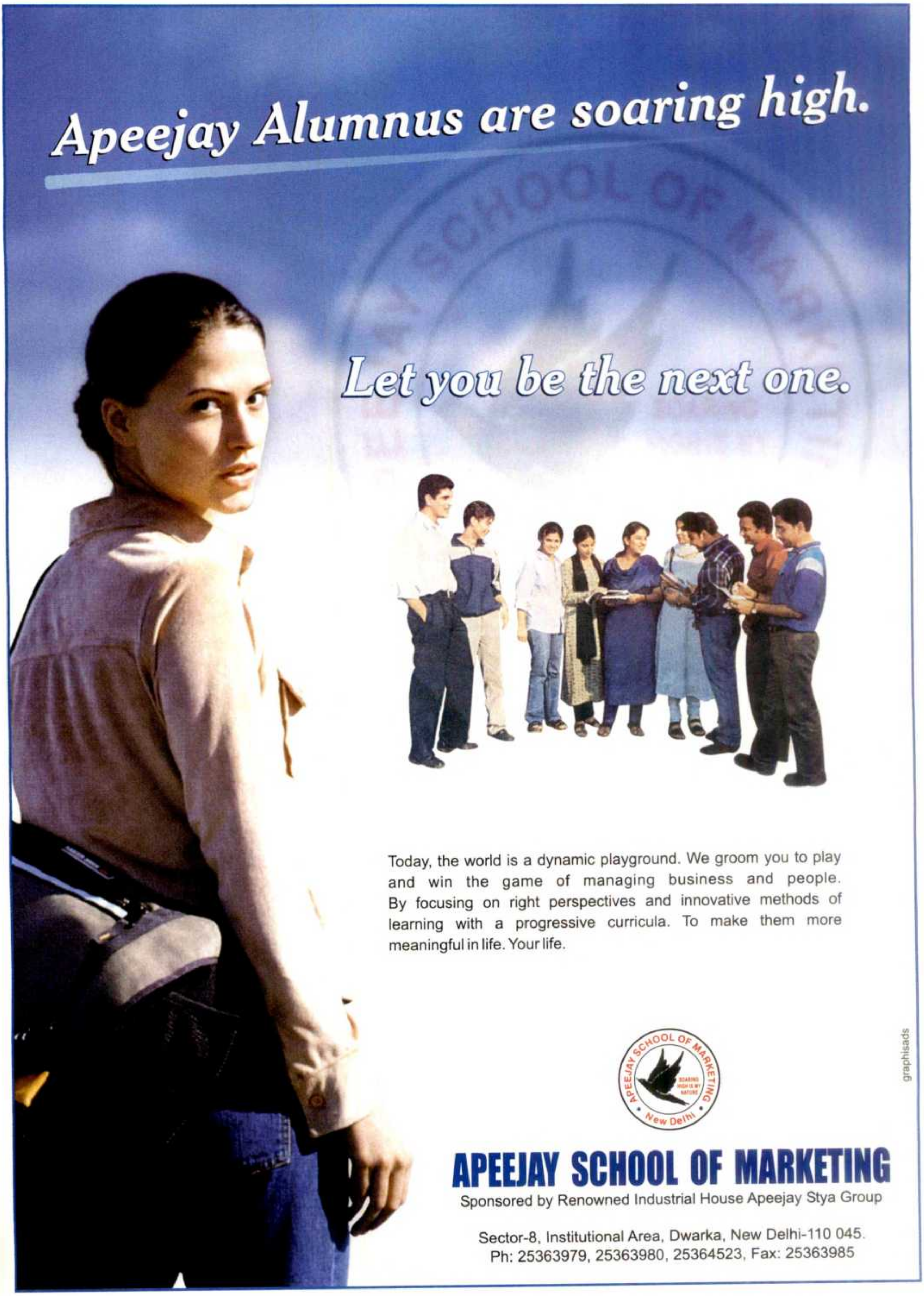
Highest salary offered: Rs 2.50 lakhs per annum
Average salary offered: Rs 1.80 lakhs per annum

FEES

Tuition Fees: Rs. 1.50 Lakhs per annum
Hostel Fees: Rs. 3,700 per month (Boarding & Lodging)

SCHOLARSHIPS

Name of Scholarship: Dr. Stya Paul Merit Scholarship
Financial Aid to Students: The school grants three scholarships of Rs. 1 lakh each to deserving and meritorious students


Apeejay Alumnus are soaring high.
Let you be the next one.

Today, the world is a dynamic playground. We groom you to play and win the game of managing business and people. By focusing on right perspectives and innovative methods of learning with a progressive curricula. To make them more meaningful in life. Your life.

APEEJAY SCHOOL OF MARKETING

Sponsored by Renowned Industrial House Apeejay Stya Group

Sector-8, Institutional Area, Dwarka, New Delhi-110 045.
Ph: 25363979, 25363980, 25364523, Fax: 25363985

graphisads

BHARATHIDASAN INSTITUTE OF MANAGEMENT

Address :Post Box No:12,BHEL Complex,
TIRUCHIRAPPALLI - 620 014
Telephone:2520796 / 2520482 /2520502
Fax:: 2520733
E mail:bat@bim.edu

GENERAL INFO

Type of School: School of excellence of Bharathidasan University, approved by AICTE
Year of Establishment: 1984

STUDENT BODY

Number of In-house Faculty: 12
Number of Visiting Lecturers on Panel: 50
Total No of students enrolled currently:
120 Per Year
Entrance examination format:Broadly Follows "G-MAT"
Venues for entrance examination:
Bangalore, Chennai, Cochin, Coimbatore, Kolkata, Maduri, Mumbai, New Delhi, Securderabad, Trichy.

ACADEMICS

Name of Dean: M. SANKARAN, DIRECTOR
Name of principal: N.A
Name of Placement Coordinator:
Prof.Y.LAKSHMAN KUMAR

COURSES OFFERED

MBA,
PH.D.

ADMISSION PROCEDURE

Stage 1 - Admission test to shortlist candidates for Interview and Group Discussion
Stage 2 - Interview and Group Discussion

DATES & DEADLINES

Issue of Application form - Sept. 01,2003
Last date for submission of application form - 31 st December 2003
Written examination Date: 25th Jan.2004
Group discussion date : February / March
Interview date : February / March
Date for commencement of course - June 2004

FROM THE DIRECTOR

We believe our graduates should serve as role models. Therefore, BIM looks beyond creating successful managers and corporate leaders. The Indian ethos emphasises development of both the intellect and sensibilities of an individual. At BIM, we lay great stress on internalising the sprit of Indian values. Above all, we provide an environment that draws the best out of an individual.
BIM has direct linkage with industry - BHEL, the Public Sector Giant - for acquiring practical skills of management. It's graduates are widely placed in leading indian and foreign companies.The Programme has attracted people with diverse backgrounds and career interests who aspire for challenging Managerial Positions. BIM is Committed to excellence and this philosophy pervades every aspect of the institute. The Institute maintains Consistently high academic standards. The Students are given an indepth exposure to all management disciplines,and close liason with business and industry is incorporated into the Curriculum. BIM's Curriculum is continously updated to meet the ever-changing needs of Business Environment. Experienced Professionals from the industry and Academia take part in this exercise.

STUDENT LIFE

The life of every student at BIM is a harmonious blend of education, learning and recreation. The daily schedule packed with demanding but enjoyable live case discussions, interactive classroom sessions and debates on a vast array of current and academic fields. BIM encourages its students to develop a good sense of camaraderie coupled with an ability to lead. It cultivates sharp business concern with a strong inclination towards principles and values. Moving from one flat to another can be a cultural change in itself. The environment of the Institute is a catalyst in the self-development of the students in realms beyond academics. Many co-curricular activities are structured for this purpose. Knowledge-oriented groups such as the Corporate Scanning Group, the Investor's Club and the Computer Society are also student managed. A gymnasium, a flood-lit volleyball court, table tennis and a playground, swimming pool are available in the BHEL Campus.

PLACEMENTS

Bajaj Allianz, Ideck, Afferguon & Co, TVS Motor Co.,Global Trust Bank Ltd, Mind Tree Consulting, Pidilite Industires, Crisil, TCS, RAMCO Systems, India Software Group, GECIS Technologies, P & O Nedlloyd India, Assure Consulting Services, IL & FS Asset Management CO, ING VYSYA Bank, Price Water Coopers House, MAFOI Management Consultants Ltd, ICICI Bank, Kotak Securities Ltd, Kotak Mahindra Finance Ltd , Om Kotak Mahindra Life Insurance Co. Ltd , Sterlite group of Companies,L&T Infotech , TTK Prestige , ICICI Prulife, Frieght Systems, Asian Paints,Eicher Goodearth,Activists for Social Alternatives, Thesys Technologies, Dr.Reddy's Research Foundation, CITI Financial Services , Club Mahindra Holidays, Lakshmi Machine Works , GELS , Indian Airlines , Ingersoll Rand , NEG Micon , RPG , Indica Research , Ford Motors, FITSI,Thinksoft Global Solutions, Heritage Fountation,VVD,Fenner India.

Average Salary Offered
Last Year:Rs. 3.2 Lakhs p.a.
This Year: Rs. 3.25 Lakhs p.a.

Highest Salary Offered:
Last Year: Rs.6.5 Lakhs p.a.
This Year: Rs.7.5 Lakhs P.a.

Lowest Salary Offered:
Last Year: Rs.2.25 Lakhs p.a.
This Year:Rs.2.25 Lakhs p.a.

FEES

Tuition fees: Rs.90,000 p.a.
Hostel fees: RS. 25,000 p.a.

"PERFECTION"

is the base for success...

BIM - A Tradition of Excellence

What are We?

A vision of a Management Institute which would be grounded in strong theoretical inputs and would have the proactive partnership of a large industrial organisation providing its students with a real world learning experience - This vision culminated in the establishment of BIM in active partnership with BHEL and Bharathidasan University in 1984. BIM is the only business school in the country selected by DRDO to train their scientists in Technology Management.

BIM provides the right ambience for the students to develop their personal and professional skills. The institute lays greater emphasis on righteous behaviour of students to groom them as responsible citizens, reflecting the core values of rich Indian traditions.

What we offer?

Two-year full time residential MBA programme with dual specialization in Marketing, Finance, Systems, Human Resources, Operations and Technology Management.

Why BIM?

- Contemporary Curriculum
- Distinguished Alumini
- Diverse student mix from 22 states
- Excellent Core and Visiting Faculty
- Rated as one of the best B-Schools in Asia
- Largest B-School in Tamilnadu with 120 seats
- Active Partnership with Industry
- 100% placement since Inception

What the media says?

The state of our economy is best mirrored in the placement performance of business schools this year. Sample the statistics: 68% of the schools surveyed couldn't place even 50% of their graduates. If we leave out the top 10 schools, the average salary for Indian jobs this year was a mere Rs. 10,000 a month! This, after the student spent at least Rs. 2 lakh as academic fees.

- Outlook magazine, Sep 9, 2002.

But here...

At BIM, placements 2003 is no exception that it has the enviable record of 100% placements since inception. About 56 Companies have visited us this year, which are in consulting, Software, Banking & Insurance, FMCG, Marketing & Manufacturing, NGOs and Logistics.

How to join us?

Look out for our Advertisements in leading National dailies during the third week of August 2003 for our 21st Batch (2004-06).
Get our application from September 2003. Write our Admission test in December 2003.
Face our Personal Interviews and Group Discussions in February 2004. Join us in June 2004.

Contact us at:

BIM

Bharathidasan Institute of Management

(School of Excellence of Bharathidasan University)
Post Box 12, BHEL Complex, Tiruchirapalli - 620 014.Ph. (0431) 2520796, 2520482.
e-mail: admin@bim.edu Web: www.bim.edu, www.bimalumni.net

Pranava bim 03

CHRIST COLLEGE INSTITUTE OF MANAGEMENT

Hosur Road, Bangalore- 560 029
Tel: 080-5536280/ 5526166
Fax: 080-5535863
Email:director_ccim@christcollege.edu
www.christcollege.edu/ccim

GENERAL INFO

Type of School (Private/Recognized): Approved by AICTE & affiliated to Bangalore University
Year of Establishment: 1994

STUDENT BODY

FULL - TIME GRADUATES: 60
Total Graduate Population : 60
(Two years) : 120

ACADEMICS

Principal: Fr.Sebastian T.A CMI
Dean: Dr. Paul A.K CMI
Faculty full-time: 20
Faculty Part-Time: 18
Computer Terminals for student use: 60

COURSES OFFERED

Master of Business Administration (MBA) with Specialization in any of the following streams:

Finance
Information Technology
Marketing
Human Resource Management

ADMISSION PROCEDURE

Entrance to the courses is on the basis of the following:

- Written test (CAT, MAT or Christ College Admission test- CCAT)
- Individual presentation
- Group task
- Interview
- Additional weightage is given for work experience

DATES & DEADLINES

Last date for issue of Application form : February 7, 2004
Last date for submission of Application form : February 10, 2004
Written Examination : February 15, 2004
Group Discussion : March 7, 2004
Interview Date : March 8,9 and 10, 2004

FROM THE DIRECTOR

CCIM is a B-School with a difference with its strong emphasis on sensitivity to the market, society and environment. A competent and committed faculty, enthusiastic and matured students are our core competence. A rigorous selection process, customized training modules, innovative pedagogy, regular mentoring, continuous institute-industry interface and quality placements have helped CCIM earn an enviable name in the corporate world.

INSIDE THE CLASSROOM

Rigour of the training is felt both inside and outside the classroom. Hectic schedules, rigid deadlines, a series of assignments, presentations, quizzes, simulated games, role-plays, case studies and projects equip the students to face any challenge in life. Participatory learning makes students contribute rather than mere spectators or recipients of information.

RESEARCH & SEMINARS

CCIM has a research publication titled USHUS. Lectures and presentations by corporate leaders, seminars and panel discussions by eminent professionals and faculty are part of our training program. CCIM also organizes faculty development workshops, management development programme and customized training programme for entrepreneurs.

STUDENT LIFE

Christ College Institute of Management is a place that allows the mature and career-focused candidates much scope for fun and enjoyment.

Creativity, imagination and initiative have no limit in this campus. Student involvement in each and every activity makes CCIM student life extremely exciting.

Student bodies such as the academic council, the institute - industry council, the library council and the placement council are the right platforms for the students to exhibit their initiative, creativity and managerial skills.

SUMMER PLACEMENTS

Total number of companies visiting the campus: 60
Top 10 companies

Cadbury's
CIPLA
CISCO
Delphi Automotives
HLL
JWT
O & M
TKM
VOLVO
WIPRO

FINAL PLACEMENTS

Total number of companies visiting the campus: 45

Top 10 companies

CITIBANK
Coke
Eli Lilly
HLL
ICICI Bank
Ingersoll Rand
Lemuir Danzas
Siemens
Titan
Widia

Highest salary offered: Rs 3.6 lakhs per annum
Average salary offered: Rs 2.16 lakhs per annum

FEES

Tuition Fees: Rs. 30,000 per term (A year is made up of three terms)

SCHOLARSHIPS

Name of Scholarship: Best Student - I, II years
Financial aid to student: Financially weak students with excellent academic records are given finacial assistance

CHRIST COLLEGE INSTITUTE OF MANAGEMENT
BANGALORE - 560 029

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REDEFINING
BUSINESS ACADEMICS

OUR ACCREDITATIONS

- **Rated A+** (Top 21-30 list by Business India, Oct 14 - 27, 2002)
- One among **TOP TEN** post- 1990 private B-Schools in India (Outlook, Sept 9, 2002)
- **First** College in Karnataka to be accredited by NAAC, UGC.
- **Best Campus** Award from Bangalore Urban art Commission
- **Competent** faculty with **industry** experience

Excellence & Service

CHRIST COLLEGE INSTITUTE OF MANAGEMENT
Tel: 080- 5536280/ 5526166
Fax: 080-5535863
E-mail: director_ccim@christcollege.edu
Visit us at www.christcollege.edu/ccim

DALY COLLEGE BUSINESS SCHOOL

Residency Area, Indore- 452 001
Phone: 0731-2700904, 2702882
Fax: 0731-2702674
Email: Info@dcbsindia.org
Website: www.dcbsindia.org

GENERAL INFO

Type of School: Private
Year of Establishment : 1998

STUDENT BODY

Full Time Under Graduates: 55
Part Time Graduates : NA
Total Graduates Population : NA

ACADEMICS

Dean: Mr.Sunil Chaturvedi (Programme Leader)
Principal: Dr. M.V. Prasad (Director)
Faculty Full-Time: 4
Faculty Part-Time: 4
Computer terminals for students use : 30

COURSE OFFERED

BA (Hons.) in Business Studies

ADMISSION PROCEDURE

Aptitude Test and Interview for XII passouts with minimum 60 per cent score in XII.

DATES & DEADLINES

Date for commencement of session: September 2003
Last date for issue of application form: July 20, 2003
Written Examination Date : July 25, 2003
Group Discussion Date: Not applicable
Interview Date: July 25, 2003

SUMMER PLACEMENTS

Students of the school undergo their summer training at an array of companies like:

Coca Cola
Pepsi
HDFC Bank
Om Kotak Mahindra
Ankit Advertising
McDonald
Nestle
Giltpack

FROM THE DEAN

In order to create a center of excellence for providing a globally suited and object oriented business management education to the aspiring youngsters DCBS joined hands with De Montfort University (DMU), Leicester of U.K. Under this collaboration, DCBS started offering BA (Hons.) in Business Studies degree programme. This program is of 3 years duration. First 2 years are to be completed at DCBS, Indore and in the final year, students have to study at Leicester Business School, De Montfort University Leicester, U.K. After three years of rigorous studies and training, students are awarded the BA (Hons.) in Business Studies degree from DMU. This combination provides the right blend of global and local element not only in academic exposure but also in better understanding of cultural, environmental and linguistic diversity of the modern corporate world.

INSIDE THE CLASSROOM

Our class rooms are well equipped with state-of-the-art audio video facilities to make lectures interactive in nature. Further class room studies focus a lot on practical learning. This course flows case based studies pattern, where cases of multi national companies having global presence are discussed. The lectures are also available on internet and students are prepared for the lecture even before the delivery and this makes their participation exemplary.

RESEARCH & SEMINARS

The course demands, research projects to be undertaken in modules like Marketing Research, Strategic Management, Employment Relations, National & International Business, Buyer Behaviour etc. The reports of students have to be backed by a presentation, which is video recorded and then used for feedback & assessment of students.

STUDENT LIFE

Students are spending around eight hours in the campus, taking lectures, surfing net and preparing for case discussions, presentations, research project etc. They are having rigrous schedule and at U.K. they have the opportunity to work with U.K. companies.

FINAL PLACEMENTS

Placement is in the United Kingdom. The companies who have offered placement to our students are:

IBM, U.K.
IDBI, India
Marks & Spencer, U.K.
Lehman Bros., U.K.
Merrill Lynch, U.K.
HSBC Bank, U.K.
GE Caps, India
Logitech, India
Phone 4U, U.K.
ACC, India

Highest salary offered: £ 22,000 per annum
Average salary offered: £ 15,000 per annum

Total number of companies visiting the campus: Not applicable as the students of the school are placed through a UK-based placement cell.

Top 10 companies
As above

FEES

Tuition Fees
Rs. 2.05 lakhs for I & II year + £ 7200 for III year in the U.K.
Hostel Fees
Not available in India + £ 4000 in UK

SCHOLARSHIPS

Name of Scholarships : Not available
Financial aid to student : Not available

What to do after XII ?

Business Management education from "Daly College Business School" gives you a career with Global opportunities.

About DCBS:

Daly College Business School (DCBS) is running a management programme for undergraduates (after class XII) :

BA (Hons) in Business Studies

DCBS has collaborated with De Montfort University, Leicester, U.K. As part of this programme, students have to study the final year in U.K. at Leicester.

De Montfort University (DMU) Business School* is one of the top ranked amongst the management schools in U.K. DCBS is well equipped with a state-of-the-art Computer Centre, ISDN Connection, E-Library and competent faculty to enrich management education.

Curriculum and systems of DMU ensure that our students are exposed to global managerial issues from the very beginning. Thus, they are equipped to exploit global opportunities.

* THE MBA PROVIDER OF THE YEAR 2003/04

- Business Britain, U.K.

Where are our students placed today?

Quite a few students have taken to entrepreneurship and are running their own businesses successfully. Some others have been employed by reputed organizations like:

- British Airways, U.K. & India
- Marks & Spencer, U.K.
- Ernst & Young
- IBM, U.K.
- Lehman Bros., U.K.
- Merrill Lynch, U.K.
- Logitech, India
- IDBI Bank
- HSBC Bank, U.K.
- ACC, India
- Phone 4 U, U.K.
- ICICI
- Commonwealth Office, India
- G E Caps, India

Academic progression

The course also lays the foundation for those wishing to obtain advanced postgraduate or professional qualifications. Some of our students are pursuing postgraduation from the following Universities :

- London School of Economics, U.K.
- Warwick University, U.K.
- Nottingham University, U.K.
- De Montfort University, U.K.
- Leicester University, U.K.
- Webster University, U.S.A.
- ACCA, U.K.
- Illinois Institute of Technology, U.S.A.
- Notre Dame University, San Francisco, U.S.A.
- I.C.A.I.

Admission Open For Session 2003-04

ELIGIBILITY

XII passouts with an aggregate of 60% or more and those expecting so. Should come from a strong English medium background.

ADMISSION -

Admission is offered on the basis of an aptitude test & an interview. Session is commencing from Sept. '03. For prospectus and application send a DD of Rs. 500/- in favour of Daly College, payable at Indore at the address mentioned or download the application form from our website - www.dcbsindia.org

For further details and admission, please write to :

Daly College Business School

Indore 452 001 (M.P.) India
Tel : 0731-270 0904 / 270 2882
Mobile : 98270-03383 Fax : 0731-270 2674
E-mail : info@dcbsindia.org
Web Site : www.dcbsindia.org

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EMPI leads the way in imparting Globalisation Knowledge and Professional Skills with *focus on Individual's Development*

Having achieved acclaim for high quality learning standards in management education both within as well as outside India - a culmination of a decade's effort and belief that only a 24x7 residential globalised learning environment with focus on individual development can bring about change in personality befitting the needs of the future Corporate World, EMPI President Gurnam Saran spoke about the concepts and pursuits which have made EMPI B-School unique. EMPI's R&D Unit's initiatives on "learning in the Indian environment" resulting in concurrent imparting of Professional Skills to enhance global employability has made EMPI the forerunner. These commendable well researched Professional Programmes are built and conducted under the direction of legendary achievers of success in the Indian setting like Mr. Ajit N. Haksar, Ms. Tara Sinha and Dr. D. V. Kapur.

Q. What is distinct in EMPI education giving the Empians an edge over others in getting good placements?

A. Our promoting team's firm commitment to retrieve the child from the current environment in which he/she is growing – one of societal indifference, by enabling each individual's development through living in a caring and nurturing 24 hours residential setting helping in recasting of attitudes and personality matching the needs of the corporate world. Resulting high quality Empians have drawn the attention of many good job giving organizations - both Indian & MNCs alike with repeat campus recruitment by companies like Coke, Tatas, Bharti, Amul, Reliance Infocom, Dr. Reddy's Lab, LG, Samsung, Nestle, Standard Chartered, Msource, HLL, Nokia, Fiat, Triton, HTA, O&M, Lintas, Mudra. Their observation that EMPI's grooming of the young brought through a discipline of better organized living in a globalization knowledge environemet matching today's *Knowledge & Skill* as well as *Work Rigour* needs of the competitive business is the motivational elixir for us to continuously upgrade our learning processes.

Gurnam Saran
Hony. President

Q. What all you have done to create such a different learning environment from other Management Institutions?

A. First of all Blessings of God for giving us, on the physical side, a huge beautiful pollution free green and peaceful campus setting. Its vast open areas providing facilities like Cricket, Tennis, Swimming, Health Club with a Multi-Gym, a 20 bed-hospital, a Post office and several Food Centres catering to nearly 3000 academic population provides better alternatives for learning and development. EMPI's location in Delhi yet away from Delhi (in the outskirts - slightly beyond Chattarpur Temple / Asola wild life sanctuary in South Delhi) is a distinct supplement for its learning net-work. By adding good communication – telephones and a satellite-wireless (with a back-up ISDN) internet link, large computer station, a modern library and an electronic resource center with digital outfit of cameras, LCDs, audio-visual and multi-media facilities, we have got closer to achieving our goal of creating a modern gurukul of our dreams.

Business India
AIMA Survey
'A' Grade Institute *
TOP 10
Rank for
Intellectual Capital
*(Survey, 2000)

Q. Do tell us more about the soft-side of the moden gurukul you have spoken about ?

It has indeed been a matter of great satisfaction for EMPI's promotions team – professionals, people form the Government and other NGOs to experience the emergence of EMPI as a well balanced learning centre, where we value our heritage, our attire, our thoughts, our concern for India's problems and are attempting to relate with our social responsibility. Other than integrating these aspects, not just, in our cuurriculam, we are enabling our pupil to live through it, possible only in a residential setting with manageable restricted numbers. It has been indeed a great feeling to witness a segment of our boys and girls wanting to start yoga classes when most of their collegues have been going for a jog or other sport as a part of their morning warm-up. Their intense involvement in celeberating our cultural functions be it Durga Puja, Id-ul-fitr or Guru-purb and other cultural programmes is indicative of our meeting their nurturing needs well.

Q. Does your unique chemistry of development also include giving the students their becoming aware of social responsibility?

A. Yes, of course. While on one hand our students are involved in intense corporate and industry interaction they have been equally enthusiastic in volunteering to participate and study of India's social milieu like recently they participated in Delhi's Bhagidari Programme and in their Social Welfare Projects. EMPI's initiative in constituting a unique forum – WE THINK FOR INDIA, drew our Honurable Prime Minister's attention wherein we presented our efforts in developing of Policy Drafts on Manufacturing Sector for Government's consideration after a national competition. Atalji inviting our team for the compendium of papers release and awards at PM's residence has indeed been a hall-mark of great feeling of participation in nation building.

Q. Why is there so much emphasis on globalization in your institution building effort ?

A. Perceiving that we Indians tend to ignore the dangers and alerts (even where it effects human life) and are slow to react to prevent the damage, in our pre-empi preparatory environment scan, we not only saw the in-coming aggressive onslaught of WTO which will hurt our economy and in turn our people, we decided to enable gearing up to meet the challenges and come out as the winners by internalising globalization in all what we do through imparting of knowledge, tools and human skills matching the global standards to stand up and fight post-WTO competition. This is considered not only as an essential need for survival but is the specifically identified route for uplifting India's economy and in turn alleviation of poverty.

Q. How are you making globalization knowledge happen in EMPI?

A. Starting with the name where 'I' signifies internationalization, we gave our team the mandate to follow the dictum " Think globally act locally". While we made studying of global developments a serious part of our day to day cultutre, we took simultaneous action to build a global academic network with movement and exchange of faculty and students around the globe. All of us involved in the development and growth of EMPI coming from the Corporate world and Industry indeed helped in making such internationalisation happen. EMPI does take pride in creating its Centre for Global Business Management & Research way back in 1998 whereby visiting faculty from US and Europe started supplementing teaching with our faculty to share international cases and projects. The centre soon became the recipient of the largest grant from the European Union for Research along with HSEBA, Finland and the University of Turin, Italy followed by EMPI becoming the country investigating partner alongwith IIM(I) and XLRI in the Globe Project commissioned by Prof. Robert House of Wharton School of Management, USA. Our association with AMIC, Singapore and the Grand Echole's – ESC Lille in France simultaneously happening has indeed made our academia experience a different learning environment.

Q. What would you call as different in your pedagogy?

A. EMPI emerging as a research and case driven residential B-School. Attempt is to synergise what is best in India with the best of the world on an on-going basis through inter-twining and networking. Emphasis on 'learning by doing' enables lot more Project activity and close Industry-interaction. Use of internet in globally linked research is yet another unique feature attempted by our students.

American Professor Dr. Katherine Comebellick teaching Cross Cultural Communication at EMPI

Q. How does EMPI manage to draw such a large number of applicants with limited publicity and promotional effort?

A. Our belief that quality speaks for itself. I guess, it has been happening when we see large growth in numbers opting for EMPI (nearly 12,500 last year). It is perhaps the result of spread of information by word of mouth. We indeed feel encouraged to work harder when we hear parent's expressions like:

"I firmly believe that EMPI with its highly experienced faculty, state of art infrastructure and scientifically developed course structure by successful Indian Corporate leaders suited to the job needs in the Indian setting would certainly help my son to become a winner in life" or

"A School as reputed as yours would enhance my wards intellectual abilities and imbibe in her the necessary training to deal with the jolts and harsh realities of the world."

"EMPI has very well understood the need to unleash the entrepreneurial managerial qualities in its studies which is the need of the hour."

Q. Why has EMPI diversified into Professional Education & Training and what is so different about EMPI's Professional Programmes?

A. Observing the mushrooming growth of management institutions and all attempting to teach stereo-typed syllabi, we felt that we are missing the very objective of our Government's mission of privatizing education i.e. to impart knowledge and skills which will befit the employment needs of the market on the one hand and relieve the unemployment pressure by creating more entrepreneurs. In 1997 we observed that more than 700 approved institutions had come up teaching Business Management (the number, I believe now has crossed 900) and there were hardly few institutions imparting professional programmes like in Communication and Advertising – a point further confirmed by the then Chairman Advertising Agencies Association of India (AAAI), Bombay Mr. Noorul Islam who also wanted us to establish an Institute inparting training in Advertising to cater to North Indian Market like MICA which caters largely to Maharashtra & Gujarat. Thus EMPI's AdCoM Progarmmes amalgamated with intense internship was created under the direct guidance of Ms. Tara Sinha and EMPI's Institute of AdCoM has become the parallel Institution to MICA to get CAT admission entry from the IIMs.

Q. How do you find has been the public response to your Professional Training Programmes as compared to your flagship PGDBM Programme that was launched by EMPI after AICTE approval ?

A. These are really two distinct sets serving Industry & Business needs. With our self-set goal to target global standards for international acceptance of students and the teaching norms from the very day EMPI was conceived, meeting AICTE norms has been easy and concurrent. The added global outlook has become a premium for our PGDBM passed out students when it comes to winning in the competitive and crowded job-market. Professional Training Programme pass-outs on the other hand have the advantage of being the first among the few with distinct skills and education – a curriculum endorsed by lead industry in the respective field and integrated with supervised work experience.

Q. Have you extended the professional skills programme at the under graduate level though EMPI's sister institutions ?

A. Yes. EMPI B-School pursuing the educational needs of globalization had designed special Graduate Studies in Entrepreunerial Management (GSEM) about a decade back with multiple objectives : (1) Parity with Western University's BBA/BCA curriculum to enable exchange of credits and direct admission (2) an Indian Degree to enable eligibility for joining IAS and IIMs (3) a Professional skill Diploma to have a caeer choice and (4) Personality grooming through EMPI's PACE-UP Programme for building a competetive person. Our GSEM pass-outs supplemented with a University degree have demonstrated thier suceess by winnining on all fronts both in India as well as internationally in academics and also in jobs.

Q. Why has EMPI B-School not extended their rich programmes to Delhi's large student population by opening centres in Delhi neighbourhoods ?

A. Since we strongly believe that retrieving the child from the current environment in which he/she is growing – one of indifference, is possible if we enable each individual's development through living in a 24 hours residential environment. This we are able to do at the campus through our round the clock support. As such we have been hesitant to start a 3-4 hour type short hours programme in the city. However, in my recent interactions with the Dean Student's Welfare (Delhi University) & Principal Gargi College, Dr. Hema Raghvan, who visited the EMPI Campus, indeed brought change in our thinking when we realized the big need of the vast burgeoning student population of Delhi. Finding that imparting of Professional Skills will enhance their employability which can be achieved through concurrent training alongwith their BA / BSc / B.Com studies, we decided to enable opening of "Globalisation Knowledge Centre (GKC)" at the Gargi College campus in South Delhi as EMPI's new initiative. Thus introduced part time professional studies in upcoming fields include areas like Advertising, Communication, Insurance, Business Process Outsourcing and Retail management. These programmes are also available in annual full time week-end or evening-studies mode. The Centre will also extend the option for the students to avail aptitude study exercises conducted by EMPI through its PACE-UP Programme using the Assessment Centre methods of Testing and other similar services.

Gurnam Saran, Former Director BHEL, President IEEMA and Advisor & Consultant, Commonwealth (UK) is the Hony. President of EMPI Business School,
CSKM Educational Complex, Satbari, Chattarpur, N. Delhi -74
E-mail : empi@del2.vsnl.net.in, www.empiindia.com

FORE SCHOOL OF MANAGEMENT

B-18, Qutab Institutional Area
New Delhi-110016
Phone: 011-26863396, 26866216, 26866305
Fax: 011-26964229
Email: admissions@fsm.ac.in
(for Admissions queries)
fore@fsm.ac.in (Other queries)
Website: www.fsm.ac.in

GENERAL INFO

Type of School: Non-profit autonomous Society

Year of Establishment: Foundation for Organisational Research & Education (FORE) established in 1981. Fore School of Management established in 1992

ACADEMICS

Directors: Dr. Binod Kumar, (Director Academic & Admn)

Dr. Seema Sanghi (Director Corporate Affairs)

Full time Faculty: 31

Visiting faculty: 47

Compute terminals for Student use: 200

COURSES OFFERED

1. Two Year Full-Time PG Diploma in Business Management
2. One Year Full-Time M.Sc. (International Business Management) with specialization in Marketing/Finance/HRM
3. Three Year Master in Computer Applications (MCA)
4. Three Year Part-Time Post Graduate Diploma in Business Management
5. Two Year Part-Time Master in Business Administration

ADMISSION PROCEDURE

For Course 1 - CAT examination followed by Group Discussion and Interview.

For Course 2, 4 qnd 5 - FORE School conducts test and Interview.

For Course 3 - Written test conducted by GGSIP University, Delhi.

DATES & DEADLINES

For Course 1

Last Date for issue of Application Form: CAT- July to September every year: FORE-August to November every year

Last Date for Submission of Application Form: CAT- September every year

FORE- November every year

Written Examination by CAT: November

Group Discussion/Interviews by FORE: March

For course 2, 4 and 5

Last Date for issue of Application Form: May/June

Last Date for Submission of Application Form: May/June

Written Examination: June

Interviews: June

For course 3

Decision taken by GGSIP University on the Admissions matters.

SUMMER PLACEMENTS

Total Number of companies visiting campus: 115

Top 10 Companies: Cadburys India,Coca Cola India, LG Electronics,Electrolux, Nestle India, Ranbaxy,Pepsi Co India, Britannia Industries Ltd, Glaxo Smithkline, Ernst & Young

FINAL PLACEMENTS

Total Number of companies visiting the campus: 75

Top 10 Companies: ICICI Bank,McKinsey Knowledge, GECIS Analytics, HDFC Bank,Taj Hotels, Zee Turner, Asian Paints, 3M, Hyundai Motors, U.B.Group

FEES

Tuition Fee

Course 1 - Rs. 3,65,000/- for General category - Rs. 6,50,000/- for Company Sponsored

Course 2 - Rs. 2,75,000/- for General category - Rs. 3,25,000/- for Company Sponsored

Course 3 - As decided by GGSIP University, Delhi

Course 4 - Rs. 2,40,000/- for General category - Rs. 3,60,000/- for Company Sponsored

Course 5 - Rs. 2,00,000/- for General Category -Rs. 3,00,000/- for Company Sponsored

Hostel Fee

- Rs. 25000-30000/- per annum (Approx.)

FROM THE PRESIDENT

We have achieved an eminent position as a business school in the country in a short time because of our very focused policies and sustained efforts. Through research and consultancy, which continues to be our fundamental strength, our effort is to make FORE School of Management a simulator of the corporate world. Highly qualified faculty, constant upgrades of the curriculum, excellent infrastructure, library and computer labs have contributed a great deal in this effort.

INSIDE THE CLASSROOM

An optimum mix of lecture, discussions, case studies, role-plays, group discussions, Special sessions from professionals from industry and trade, management games, sensitivity training, management films, industrial visits and industry interaction. Students are encouraged to represent their cases through individual presentations. Further opportunity is provided through participation of students in various seminars. Keeping in line with the growing interest of the students in specific functional areas, Course of Independent Study (CIS) has been introduced.

RESEARCH & CONSULTANCY

Research and consultancy has been a core activity at FORE since its inception in the 1981. They are provided to the corporate sector for upgrading the management practices in organizations in various sectors of the economy with emphasis on problem solving. FORE cooperates with other professional bodies to promote research and consultancy, and also assists client organizations in the implementation of the changes recommended by it.

STUDENT LIFE

FORE concerns itself with overall development of managers of the new millennium. The curriculum at FORE is constantly upgraded with productive inputs from both faculty as well as students, who in turn are constantly in touch with the corporate sector and the alumni to help future managers meet the challenges of competition and to avail of emerging business trends. Our students are empowered to conduct various activities on their own.

FORTUNE INSTITUTE OF INTERNATIONAL BUSINESS

G-22, Shahi Road, Pushpanjali Bijwasan,
New Delhi-110 061
Tel: 2506 3013, 2506 5834
Fax: 2506 5183
Email: fiib@vsnl.com
Website: www.fiibindia.com

GENERAL INFO

Type of School: Recognized/Accredited by AICTE, Ministry of HRD, Govt. of India.

Year of Establishment: 1995

STUDENT BODY

Full-Time Graduates: 120 (As per AICTE Norms)

ACADEMICS

Director General: Dr. Reena Ramachandran

Dean: Dr. M.S. Lakshmi

Faculty Full-Time (Nos): 12

Faculty Part-time (Nos): 18

Computer Terminals for Students' use: 70

COURSES OFFERED

Two-Year Post Graduate Diploma in Business Management (PGDBM) with specialization in International Business, International Finance & Marketing.

ADMISSION PROCEDURE

Candidates opting for FIIB in MAT are called for GD & Interview for final selection. Management Aptitude Test conducted by All India Management Association (AIMA), four times (Sept, Dec, Feb. & May) in a year. Interested candidates may visit the AIMA Website: www. aima-ind.org. During the previous year, over 2800 students applied for admission in FIIB but only 120 were selected.

ELIGIBILITY

50% marks in aggregate in Graduation.

Caution: Please do mention FIIB Code 1113 in MAT Form.

DATES & DEADLINES

Last date for issue of Application Form (date/month/year): As mentioned hereunder.

Last date for submission of Application Form (date/month/year):

•September MAT 2003: Mid - October'03

•December MAT 2003: Mid - January'04

•February MAT 2004: Mid - March'04

May MAT 2004: Mid - June'04

Written Examination Date (date/month/ year): •As per AIMA NormsGroup Discussion & Interview Date (date/month/ year): •After declaration of MAT Result by AIMA.

SUMMER PLACEMENTS

Total Number of companies visiting the campus: 50

Top 15 Companies

Al Dobowi LLC, Dubai, Dabur India Ltd., Indian Oil Corporation Ltd., HLL, Ahmedabad Unit, LG Electronics (I) Pvt. Ltd., Maruti Udyog Ltd., Philips India Ltd., Ranbaxy Ltd., STC of India,Tata Steel., TELCO., ICICI Bank., Larsen & Toubro Ltd., GAIL., Power Grid Corporation

Many other premier companies from private & public sector.

FINAL PLACEMENTS

Total Number of companies visiting the campus: 30

Highest Compensation Offered: Rs. 3 lakhs approx per annum

Average Salary Offered: Rs. 2.4 lakhs approx per annum

Top 15 companies

Samsung Electronics Co.Ltd., Dubai, Nexus International, Dubai, Kapsco Pte. Ltd., Singapore, MRF Ltd., Bangladesh, KPMG, Canada, Maersk Sealand Pvt. Ltd., United Phosphorous Ltd., LNJ Bhilwara Group, Mitsui & Company Ltd., ICICI Bank Ltd.,Citibank,Tata Interactive Services, Kuehne & Nagel Pvt. Ltd., ND, LMJ Intl, Kolkata,GE Capital Intl. Services

FEES*

Tuition Fee: Rs. 2.25 lakhs inclusive of other charges.*Sponsored Candidates - Rs. 3.00 lakhs*NRI Candidates - US$8,000 approx

*Subject to revision. **Hostel charges extra

SCHOLARSHIPS

Number of Scholarships: 2 (two)

Financial Aid to Student: Students could seek Bank loan directly.

FROM THE DIRECTOR

In the fast changing business scenario Corporates look for young, creative, innovative, knowledgeable & result-oriented professionals with cross-cultural and cross-functional abilities and global mindset in order to respond to the global standards and the challenges arising therefrom.FIIB precisely does so by successfully transforming young graduates through its revamped Two-Year Post Graduate Diploma in Business Management (PGDBM) Programme and our seasoned faculty, making them fully competent to meet the expectations of the Corporates and the new Business order.

INSIDE THE CLASSROOM

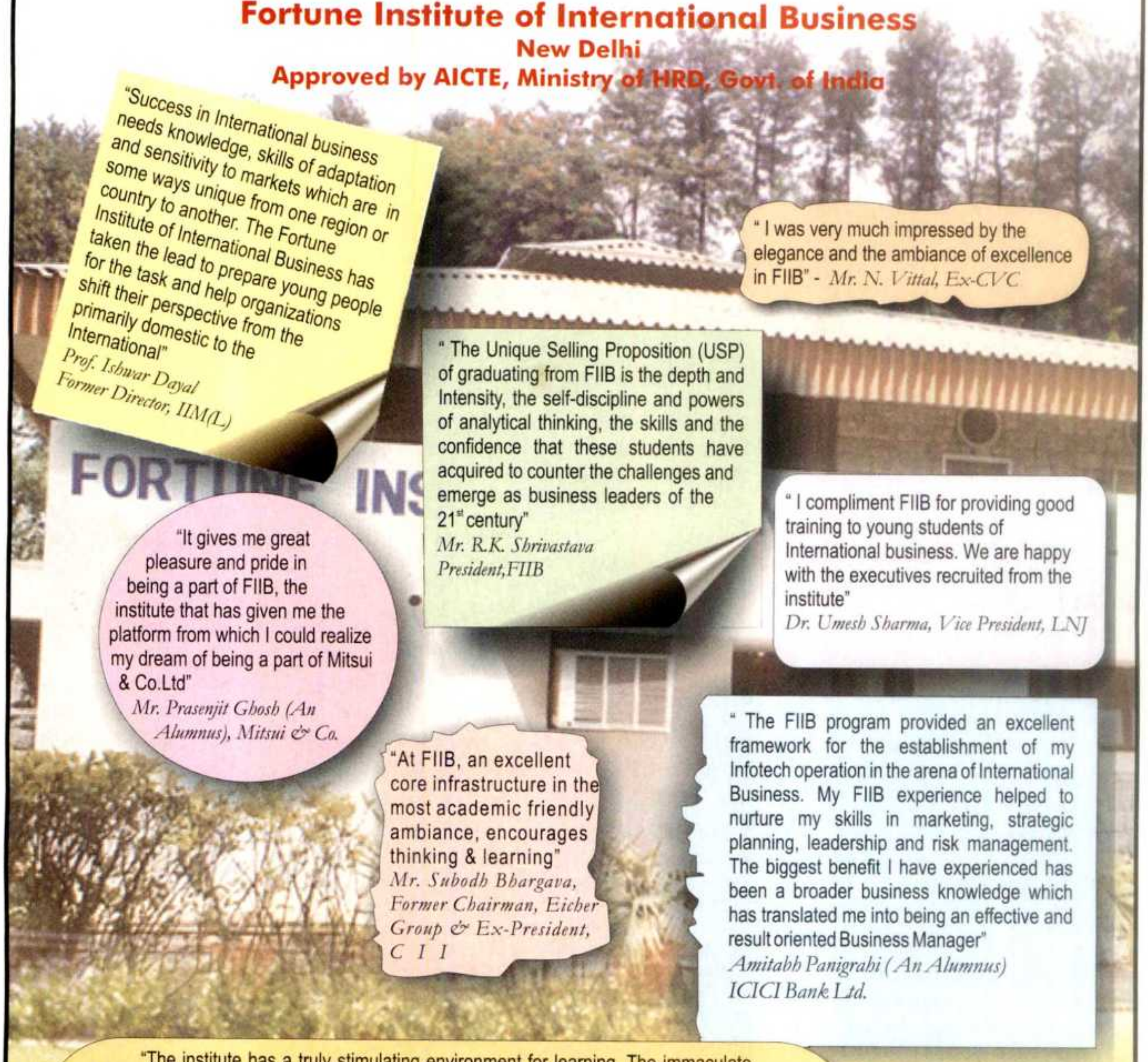
FIIB continues to give thrust to career building in multiple streams through its PGDBM Programme by exposing the participants to the latest developments and challenges of the business world. Its updated curriculum blended with innovative teaching technology equips the young minds to find effective solutions to business problems with a strategic perspective.

RESEARCH & SEMINARS

The impact of the process of globalization necessitates the highest level of professional efficiency and consistency. Against this backdrop, FIIB engages itself in conducting research work, seminars, consultancy and MDPs not only to constantly enhance academic excellence but also to meet the requirements of trade and industry.

STUDENT LIFE

Sound mind with a sound body - this is what FIIB practices. In this pursuit, students are encouraged to organize and participate in various activities, which includes Academic, Cultural, Sports, Athletics and Yoga & healthcare as well as interface with Corporates / Executives & Placements. For this purpose students' committees are constituted which ensures efficient implementation of all programmes and students acquiring hands on experience by organizing these events.



FIIB
MANAGING FOR THE FUTURE

Fortune Institute of International Business
New Delhi
Approved by AICTE, Ministry of HRD, Govt. of India

"Success in International business needs knowledge, skills of adaptation and sensitivity to markets which are in some ways unique from one region or country to another. The Fortune Institute of International Business has taken the lead to prepare young people for the task and help organizations shift their perspective from the primarily domestic to the International"
Prof. Ishwar Dayal
Former Director, IIM(L)

" I was very much impressed by the elegance and the ambiance of excellence in FIIB" - *Mr. N. Vittal, Ex-CVC*

" The Unique Selling Proposition (USP) of graduating from FIIB is the depth and Intensity, the self-discipline and powers of analytical thinking, the skills and the confidence that these students have acquired to counter the challenges and emerge as business leaders of the 21st century"
Mr. R.K. Shrivastava
President, FIIB

" I compliment FIIB for providing good training to young students of International business. We are happy with the executives recruited from the institute"
Dr. Umesh Sharma, Vice President, LNJ

"It gives me great pleasure and pride in being a part of FIIB, the institute that has given me the platform from which I could realize my dream of being a part of Mitsui & Co.Ltd"
Mr. Prasenjit Ghosh (An Alumnus), Mitsui & Co.

"At FIIB, an excellent core infrastructure in the most academic friendly ambiance, encourages thinking & learning"
Mr. Subodh Bhargava, Former Chairman, Eicher Group & Ex-President, C I I

" The FIIB program provided an excellent framework for the establishment of my Infotech operation in the arena of International Business. My FIIB experience helped to nurture my skills in marketing, strategic planning, leadership and risk management. The biggest benefit I have experienced has been a broader business knowledge which has translated me into being an effective and result oriented Business Manager"
Amitabh Panigrahi (An Alumnus)
ICICI Bank Ltd.

"The institute has a truly stimulating environment for learning. The immaculate landscaping and aesthetic designs of this place makes it so special for the young minds to acquire knowledge"
Dr. R.A. Mashelkar, Secretary, Deptt. of Scientific & Indl. Research & DG, CSIR

Fortune Institute of International Business (FIIB)
G-22, Shahi Road, Pushpanjali, Bijwasan. New Delhi- 110061
Tel: 011- 25063013, 25065834 Fax: 011- 25065183
e-mail: fiib@vsnl.com Website: www.fiibindia.com

DEPARTMENT OF MANAGEMENT STUDIES, GARDEN CITY COLLEGE, BANGALORE

CAMPUS:16th K.M Old Madras Road,
Bangalore-560049.
TEL: (080)5613583, 5612572, 5610117.
ADMIN OFF: # 628, 11th Cross, 1st stage,
Indira Nager, Bangalore- 560038
TEL:(080) 5288831, 5271385, 5214246.
Fax : 080- 5291414.
Email: gcetrust@vsnl.com
<mailto:gcetrust@vsnl.com>
Website: gardencitycollege.edu.

GENERAL INFO

Type of School: Private, unaided, affiliated to Bangalore University and approved by AICTE, New Delhi.
Year of Establishment: 1994

STUDENT BODY

Full-time graduates: 120

ACADEMICS

Principal: Dr. G. Venkatesh
Director: Prof. James K. Alumkara
Faculty full-time: 15
Faculty part-time: 7
Computer terminals for students use: 60

COURSE OFFERED

MBA

ADMISSION PROCEDURE

University Quota seats: Entrance Examination conducted by Bangalore University
Management Quota seats: Group Discussion and Interview.

DATES & DEADLINES

Last Date for issue of Application Forms;30th May 2004
Last Date for submision of Application Forms;30th May 2004
Written Exam Date: 1st Week of July
Group Discussion:1st Week of July
Interview:1st Week of July

FROM THE DIRECTOR

In today's information flooded world, knowledge is the most valuable asset. Unless students learn to effectively capture, manage and keep it both internally and out in the marketplace, they will falter. The Department of Management Studies, Garden City College, therefore, practices a new model of teaching and learning for the students of MBA. We call it the VALUE model. 'VALUE' stands for 'Value Addition (through Learning and Unlearning) for Excellence'. This model equips the students with the latest skills required for tomorrow's knowledge economy and enables them to become more realistic in their approach towards management through a series of learning and unlearning experiences. This model has been designed keeping in mind the curriculum requirements for the MBA course and current business practices. Suitable customization is made wherever required.

INSIDE THE CLASSROOM

At GCC, we ensure that learning becomes enjoyable. Simulated games, group assignments, role-plays, video sessions, multimedia presentations etc, make class room learning more interesting and invigorating. The department makes sincere and concerted efforts to provide holistic knowledge encompassing all aspects of management education.

RESEARCH & SEMINARS

Apart from providing the required academic inputs as per the curriculum requirements, the department plans and organizes various other activities to hone the skills of budding managers and to prepare them for the fiercely competitive corporate world. Seminars and workshops are arranged throughout the year where leading resource persons from the industry enlighten the students on current practices in management.

STUDENT LIFE

At Garden City College, a student is taught life-skills. A student practices what he/she learns. Innumerable opportunities for planning and organizing events/ activities are given to them. Fast learners are given additional responsibilities in various activities.

WINTER PLACEMENTS

Total number of companies that offered winter placement: 27
Including
Cipla Limited
United Technologies
ADT India Limited
ICICI Bank
Indian Bank
Lease Plan India Ltd.
HDFC Bank
Bhoruka Gases Limited
NG Vysya Asset Management Co.
Bata India Limited

FINAL PLACEMENTS

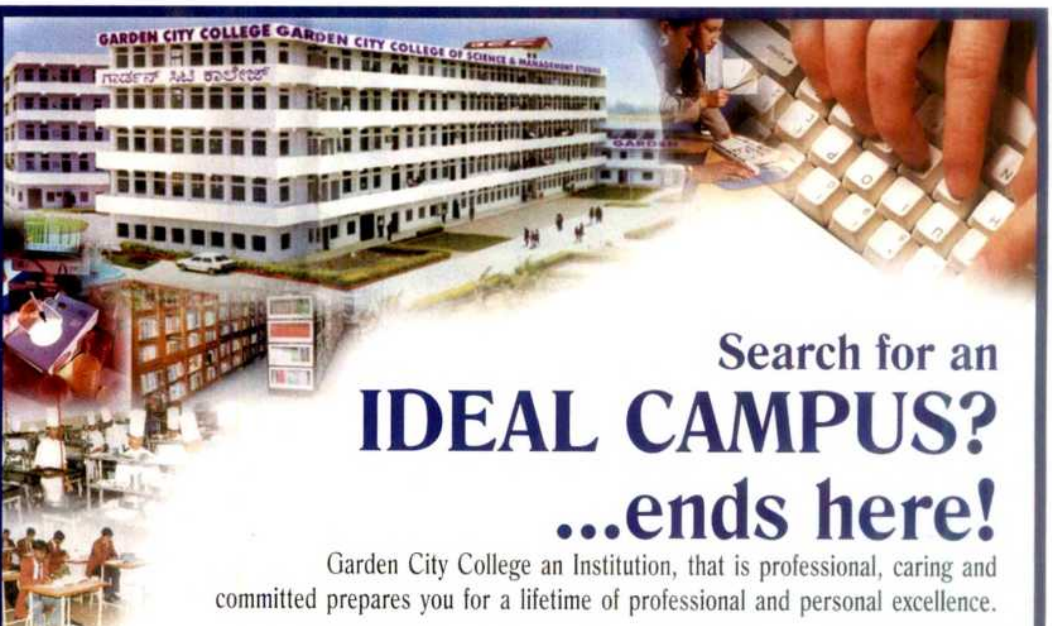
Total number of companies visiting the campus: 31
Including
Cipla Limited
HDFC Bank
Newwave Computing Private Limited
Khoday's Group
Bhoruka Gases Limited
Bata India Limited
ING Vysya Asset Management Co.
Prolabs
Narayana Hrudayalaya
OM Kotak Mahindra Finance

Highest salary offered: Rs. 2.4 lakhs per annum
Average salary offered: Rs. 1.32 lakhs per annum

FEES

Tution Fees: 35000/- per sem
Hostel Fees: 3200/- per month

TOP B-SCHOOL IN BANGALORE



Search for an
IDEAL CAMPUS?
...ends here!

Garden City College an Institution, that is professional, caring and committed prepares you for a lifetime of professional and personal excellence.

CO-CURRICULUM
- Merit Scholarships and Financial Aids
- Personality Development Programme
- Weak Students Support Programme
- Career Guidance
- Industries & Institution Interaction
- Placement Services

CAMPUS
- Serene, Scholastic Atmosphere
- Spacious Lecture Halls
- Computerized departments
- An Extensive Library
- Sports Facilities
- Separate Hostels for boys and girls

INFRASTRUCTURE
- Faculty Members with a passion for excellence
- Sophisticated Equipment
- State-of-the-art Laboratories
- Network with Internet facility
- Interactive Web

COURSES OFFERED

M.T.A. Master of Tourism Admn.
Dur : 2 Years Elg :Any 3 Year Degree with 50% marks in aggregate

BHM Bachelor of Hotel Mgmt.
Dur : 4 Years Eig : Pass in 10+2/Equivalent in any discipline

B.Com. Computers
Duration: 3 Yrs. Eligibility: Pass in 10+2/Equivalent in any discipline

B.Sc. Microbiology
Duration: 3 Yrs. Eligibility: Pass in 10+2/Equivalent with Chemistry & Biology

BCA Bachelor of Computer Application
Duration: 3 Yrs. Eligibility: 10+2 With 40% Marks in any discipline

B.A. Journalism
Dur : 3 Years Elg : Pass in 10+2/Equivalent in any discipline

M.C.A. Master of Computer Appl.
Dur : 3 Years Elg : Any 3 year degree with 50% marks in aggregate and one subject among Mathematics, Business Mathematics, Statistics and Computer Science at 10+2 Level or graduation

BBM Bachelor of Business Mgmt.
Duration: 3 Yrs. Eligibility: Pass in 10+2/Equivalent in any discipline

B.Sc. Genetics
Duration: 3 Yrs. Eligibility: Pass in 10+2 with Chemistry & Biology

B.Sc. Biotechnology
Duration: 3 Yrs. Elig. : Pass in 10+2 with Chemistry & Biology

B.P.T. Bachelor of Physiotherapy
Dur: 4 Yrs. Elg: Pass in 10+2 with 45% Marks in Physics, Chemistry & Biology

B.Sc. Computer Science
Duration: 3 Yrs. Elig. : 10+2/Equivalent with Maths.& Physics/Statistics.

M.B.A. Master of Business Admn.
Dur : 2 Years Elg : Any three year degree with 50% marks in aggregate

M.S.W. Master of Social Work
Dur : 2 Years Elg : 50% Marks Aggr. in B.A. with any one subject among Social Work, Sociology, Anthropology, Economics, Political Science, Public Admin., History, Philosophy or a Degree in Law, or a Degree With 3 Years experience in Social Work in a recognised institution.

B.Sc. Fashion Design
Dur : 3 Years Elg : 10+2 with 45% Marks in any discipline

M.Sc. Microbiology
Dur : 2 Years Elg : Pass in three Year Degree with 50% marks in aggregate & Microbiology as one of the subject, along with Chemistry and a subject of Life Sciences

M.Sc. Biochemistry
Dur : 2 Yrs. Elg : Pass in 3 Year Degree with 50% marks in aggregate and Chemistry as one of the subject and other 2 subjects pertaining to Life Sciences.

M.Sc. Biotechnology
Dur : 2 Yrs. Elg: Any recognised 3 year degree with 50% marks in aggr. & Chemistry/ Biochemistry as a compulsory subject. The other two optional should be from a) Microbiology b) Biotechnology c) Botany d) Applied Botany e) Zoology f) Environmental Science g) Genetics h) Sericulture.

M.P.T. Master of Physiotherapy
Dur: 2 Yrs. Elg : B.Sc. (P.T.) or BPT from any university with 50% marks in aggregate

GARDEN CITY COLLEGE

(AFFILIATED TO BANGALORE UNIVERSITY & APPROVED BY AICTE, GOVT. OF INDIA)
CAMPUS: 16th K.m., Old Madras Road, Bangalore - 49. E-mail: gcetrust@vsnl.com

Admin. Office : 628/C, 1st Stage, Indiranagar, Bangalore - 560 038.
Tel : 080-5288831, 5271385, 5214246 Fax : 080 - 5291414

www.gardencitycollege.edu

Dr. Joseph V.G.
Chairman

INTEGRATED ACADEMY OF MANAGEMENT AND TECHNOLOGY (INMANTEC)

Adyatmik Nagar, Ghaziabad Bypass (28th stone, NH-24), NearDasana Rly Crossing,
Ghaziabad. U.P. 201 002,
NCR of Delhi, India
Telephone (0120) 2768951-52,2800118, 2800418
Fax: (0120) 2800918
Email: iman@del2.vsnl.net.in
admissions@inmantec.edu

GENERAL INFO

Year of Establishment : 1995

STUDENT BODY

Students Enrolled Currently : 752

ACADEMICS

Director General: Prof. (Dr.) K.C. Sethi, Ex. Prof IIM-C & MDI
Director (Academic): Dr. R.K. Gupta
Placement Coordinator: Dr. Aftab Alam and Prof. Aseem Kumar
In-house faculty: 23
Visiting lecturers on panel : 21

COURSES OFFERED

PGDM (2 year full time): 60
MCA (3 year full time): 60
BBA+ADGIM + Softskills: 120
BCA+ADITM+Softskills: 90
MSc. (IS): 40
PhD. 16 research scholars at a time

ADMISSION PROCEDURE

Entrance Examination Format: Through CAT and on Direct basis
Venues for Entrance Examination
New Delhi, Kolkata, Chennai, Hyderabad, Allahabad

DATES AND DEADLINES

Issue of application form: From September 15 every year
Last date for submission of application form: As announced
Written examination, Group Discussion and Interview: Mid February
Date for commencement of course: July 15 every year

MESSAGE FROM THE DIRECTOR (ACADEMIC)

The environment at Integrated Academy is conducive to research based participatory teaching, which not only ensures that the students get the real view of the corporate world but also develop sound acumen to face the related challenges. As a result the finished product of this institute is accepted throughout the length the breadth of this country and abroad with equal warmth.

INSIDE THE CLASSROOM

The classroom have been redefined at Integrated Academy and are fulfilling their core objective of producing "Benchmarked Professionals". The classroom scenario involves "out of the box" case based teachings & corporate standoffs involving full teacher-taught participation. The classrooms at Integrated Academy serve as gateways to illustrious careers.

RESEARCH & SEMINARS

At Integrated Academy, we always believe that the fundamental gains of professional education lie in research applications and their respective presentations. Integrated Academy organizes periodic seminars, industry symposiums and international conference. Such events serve the role of eye openers for our students as well as the participants and at the same time provide the best possible platform for the researchers to present their work.

STUDENT LIFE

The student life at Integrated Academy is full of the extremities of education and fun. The student managers live a life full of vigour and learning, which ensures a relaxed breeding ground for the "corporate warriors of tomorrow".

Life at the campus involves a true mix of classes, sports, cafeteria, recreational and developmental activities which enables the students to achieve all-round personality and professional development.

SUMMER PLACEMENTS

Top 10 recruiters
Last Year
Samsung India
Metallur Tolido (Sweden)
Mahindra & Mahindra Ltd
Mico Ltd
ICICI Bank
STG Corporate
Kinetic Ltd
IFFCO
Jagsonpal Pharma Ltd.
Durcans Ltd

Top 10 recruiters
This Year
Gestetner (UAE)
Nestle India Ltd.
ITC Ltd
Dabur India Ltd.
Techspan (USA)
HDFC Bank
Stingray Technologies Ltd
Sun Pharma Ltd
ICICI Bank
Cipla Ltd

Average salary offered
Last year: Rs. 2.12 lakhs p.a.
This year: Rs. 2.33 lakhs p.a.

Highest salary offered
Last year: Rs. 3.00 lakhs p.a.
This year: Rs. 3.25 lakhs p.a.

Lowest salary offered
Last year: Rs. 1.60 lakh p.a
This year: Rs. 1.50 lakh p.a.

REMARKS

Since inception the Institute has been able to achieve the highest standards in education. The driving force behind Inmatec's success is its vision and passion that is shared by its students, staff and management alike. The institute has been known for its innovative approach, unparalleled teaching methodology, intellectual capital and enviable placement record resulting in a consistent high ranking among B-schools of India. The campus, spread over lush green acres of land, is a blend of architectural splendour and functional convenience and has all world-class amenities.

THE INTEGRATED ACADEMY OF MANAGEMENT AND TECHNOLOGY
THE INMANTEC
In quest of excellence

An 'A' ranked Business School, Rated Among Top 36 B-Schools in India
(AIMA Business India and Cosmode-Business Today Survey Reports '02 & 03)

PROGRAMS OFFERED

PGDM

Two-year full-time Post Graduate Diploma in Management
(Approved by AICTE, Ministry of HRD, Govt. of India)
Spln. in Marketing, Finance, HR, IT, Int'l Business & ITES

MCA

Three-year full time degree (*Approved by AICTE, and affiliated to UP Technical University, Lucknow)*

BBA DEGREE + ADGIM + SOFT SKILLS PROGRAM

(Three-year BBA degree program of Dr BR Ambedkar University, Agra + Advanced Diploma in Global Integrated Management including certificate in foreign language + Comprehensive Communication skills modules)

BCA DEGREE + ADITM + SOFT SKILLS PROGRAM

(Three-year BCA degree program of Dr BR Ambedkar University, Agra + Advanced Diploma in IT Management including certification in foreign language + Comprehensive Communication skills modules)

LLB

Three-year full time degree (*Approved by Bar Council of India, and affiliated to Ch. Charan Singh University, Meerut)*
Under **Integrated School of Law**

Candidates appeared in their final exams can also apply

STRATEGIC TIE-UPS

The Institute has made exclusive strategic tie-ups with HERO mindmine (A Hero Group Company) to provide 180 hrs. program in communication skills, personality grooming and soft skills; and with **inlingua** for offering foreign language (German, French or Spanish) to its BBA and BCA students in a parallel mode.

THE INSTITUTE

Apart from a magnificent infrastructure in a sprawling green campus, with world class amenities and highest standards of education, the Inmantec has to its credit two hi-tech Integrated Computing Centers, equipped with a wide range of application software, multimedia, Internet with a 128 Kbps dedicated lease line; beside a library with huge collection of books, journals & videos; enviable placement record; direct recruitment from the campus by top Indian and multinational companies; separate hostels for boys and girls,a friendly atmosphere, emphasis on all round development and lot more for a rewarding career ahead.

SALIENT FEATURES

The Institute offers research opportunities to scholars leading to the award of PhD degree under the curriculum of Agra University, optionally in association with the University of Hawaii at Manoa, USA. The Institute sponsors its faculty and students for national and international seminars to read their papers; holds annual convocations addressed by eminent and top-brass personalities; brings out its own biannual publication 'PRANJANA : The Journal of Management Awareness', and a monthly online newsletter 'REVIEW'; will be hosting its fifth successive international conference 'Learning Beyond Borders in WTO Regime' in New Delhi on January 8-9, 2004 apart from various seminars & workshops that it is regularly holding. It makes use of its unique methodology of teaching thereby giving the students a thorough insight to the world.

CLASSIC

For further details about placement and admissions call :

INTEGRATED ACADEMY OF MANAGEMENT AND TECHNOLOGY

Adhyatmik Nagar, 28th stone, Delhi-Lucknow national highway,
Ghaziabad Bypass, Near Dasna Railway Crossing,
Ghaziabad - 201 009 - UP, India
Tel: (120) 2768951-52, 2800118, 2800418, Fax : (120) 2800918 or
information office at Delhi (011) 24649953, 24649968 (24 Hr. Service)
E-mail: inman@del2.vsnl.net.in, Website: **www.inmantec.edu**

Application form can be downloaded from the website also.

ICFAI BUSINESS SCHOOL

Headquarters: 62, Nagarjuna Hills,
Punjagutta
Hyderabad - 500 082
IBS Centers in 16 cities all over India.
Telephone: 040 - 2335 6642, 6741,
5563 5741 - 43
Fax: 040 - 2335 5303
Email: ibshq@ibsindia.org
Website: www.ibsindia.org

GENERAL INFO

Type of school: A constituent of ICFAI University
Year of Establishment: 1994

STUDENT BODY

Number of students currently enrolled in the school: 2862 (at all IBS Centers)

ACADEMICS

Dean: Prof. S.K. Sharma
Director: Dr. V. Panduranga Rao
National Placement Coordinator:
Mr. C. Srinivas
Full-time Faculty: 259
Visiting lecturers on the school's panel: 110

COURSES OFFERED

Master of Business Administration (MBA) with the following elective streams: Marketing, Finance, Human Resource Management, IT & Systems, International Business, Accounting & Control, Insurance, Banking, Investments

ADMISSION PROCEDURE

Candidates are selected on the basis of their performance in the IBS Admission Test (IBSAT), Micro Presentation, Preliminary & Final Interviews
Entrance Examination venues: 60

DATES & DEADLINES

Issue of Application Form:
July 1, 2003
Last date for submission of application forms:
December 12, 2003
IBS Admission Test (IBSAT):
December 21, 2003
Interview date:
February 2004 (Second & Third Weeks)
Date of commencement of course:
June 1, 2004

INSTITUTE PROFILE

ICFAI Business School (IBS), established by The Institute of Chartered Financial Analysts of India (ICFAI) in the year 1995, is a constituent of ICFAI University. IBS operates in 16 centres -- Ahmedabad, Bangalore, Bhilai, Bhubaneshwar, Chandigarh, Chennai, Dehradun, Gurgaon, Hyderabad, Indore, Jaipur, Kochi, Kolkata, Mumbai, Pune and Ranchi.

Recognizing the globalization imperative, the ICFAI University and IBS have established a close networking relationship with leading institutions and professional bodies around the world like the Association to Advance Collegiate Schools of Business (AACSB), USA; Chartered Institute of Marketing, UK; Transworld University, USA; Association of Certified International Investment Analysts (ACIIA), UK; American Accounting Association (AAA), USA; Asian Securities Analysts Federation (ASAF), Australia; Asia Pacific Risk and Insurance Association (APRIA), Singapore, among others.

The ICFAI Business School uses the case studies method extensively and its affiliate, ICFAI Centre for Management Research (ICMR), is an active member of the European Case Clearing House (ECCH) and among the top-ten contributors globally.

ICFAI Business School students are exposed to a real life business environment during their 16-week Summer Internship and 16-week Management Research Project as part of the curriculum.

Several independent surveys of business Schools conducted in the year 2002 have ranked IBS among the top B-Schools of the country. IBS is ranked # 1 among the Private B-Schools set up after 1990 and in the A+ (First level) list.

The ICFAI Business School is also ranked 1st in Faculty Strength, 1st in Student Strength, 6th in Intellectual Capital, 7th among the non-IIM B-Schools, 8th in Academic environment, 9th in Industry Interface and 12th on an overall basis among all B-Schools in the country.

PLACEMENTS

A large number of leading corporates visit the ICFAI Business School campus for recruitment of its graduates

Top Ten recruiters
Last year

Atlas Capco
Citicorp Securities
Darashaw
GE Countrywide
Global Trust Bank
Hindustan Liver Limited
Nicholas Piramal
Oracle India Ltd.
Satyam Computers
Tata Consultancy Services

This year

Darashaw
E-Serve International
GE Countrywide
HDFC Bank
ICICI Prudential Life Insurance
J.P. Morgan
Nicholas Piramal
Oracle India Limited
SIDBI
Tata Consultancy Services

Average salary offered
Last year: Rs 2.25 lakhs per annum
This year: Rs 2.95 lakhs per annum

Highest salary offered
Last year: Rs 7.5 lakhs per annum
This year: Rs 5.5 lakhs per annum

Lowest salary offered
Last year: Rs 1.5 lakh per annum
This year: Rs 2 lakhs per annum

The ICFAI University
ICFAI
BUSINESS SCHOOL

Ahmedabad, Bangalore, Bhilai, Bhubaneswar, Chandigarh, Chennai, Dehradun, Gurgaon, Hyderabad, Indore, Jaipur, Kochi, Kolkata, Mumbai, Pune & Ranchi

MBA
2004-06

- Marketing
- Finance
- HRM
- IT & Systems
- International Business
- Accounting & Control
- Banking
- Insurance
- Investments

Eligibility: Graduates (Any discipline, English Medium) with 50% and above. Final year students of Degree Courses are also eligible to apply.

Selection: Based on IBS Admission Test (IBSAT) and Interviews (GMAT scores are also accepted. IBS code no. for GMAT : 7061)

IBS Admission Test (IBSAT) 2003:
December 21, 2003
At 60 Test Centers all over India

ICFAI Business School
Ranked among Top B-Schools

- **1st Rank among Private B-Schools set up after 1990**
- **1st Rank in Faculty Strength**
- **1st Rank in Student Strength**
- **6th Rank in Intellectual Capital**
- **7th Rank among the Non-IIM B-Schools**
- **8th Rank in Academic Environs**
- **9th Rank in Industry Interface**
- **12th Rank on Overall basis among all B-Schools**

Source: Various B-School Surveys.

Visit us at
www.icfai.org/ibsat

HIGHLIGHTS

- **Two year Full-time Campus-based Program**
- **Competent and Committed Faculty**
- **Fully equipped computer labs & libraries**
- **Unique 16-week Summer Internship Program**
- **100% placements with Blue-Chip organizations**
- **Strong alumni network with over 3500 members**
- **Global affiliations**

For Details & Prospectus, please contact ICFAI University Study Centers at : (Phone Nos. given below)

Agra: 2527035; Ahmedabad: 6563042 / 2458; Ajmer: 2622707; Allahabad: 2420255; Anantapur: 249334; Aurangabad: 5624774 / 75; BANGALORE - Infantry Road: 2899363 / 262; Jayanagar: 6991202; Bhopal: 5277253, 2576975; Bhubaneswar: 2506203 / 04; Chandigarh: 381128, 749504; CHENNAI - Adayar: 24405944 / 5955; Nungambakkam: 28235633/688; Coimbatore: 2541190; Dehradun: 2654002/03; Guntur: 2238958; Gurgaon: 2223595/5556; Gwalior: 2322273; Hubli: 2371738; HYDERABAD - Punjagutta: 55663661, 55681180/81; Vidyanagar: 27630356 Indore: 5068247/9003; Jabalpur: 5066886; Jaipur: 2363695, 2373689; Jamshedpur: 2434957; Kakinada: 2387772; Kanpur: 233-0912/1145; Kochi: 2369763, 2382294; Kolhapur: 2655142; Kolkata: 22873161/17802; Kurnool: 249811; Lucknow: 2204205/559; Ludhiana: 2772523; Madurai: 2342169; Mangalore: 2432050; MUMBAI - Nariman Point: 22040888, 22823173; Andheri (West): 26716563/8410; Mysore: 543803; Nagpur: 2564314, 2547124; Nasik: 2570413; Nellore: 2301222; New Delhi: 23739157/169; Noida: 2592410, 2516024; Patna: 2237942; Pune: 4026975, 4026976; Raipur: 5061361; Rajahmundry: 2448813; Ranchi: 2306922; Thane: 25382659, 25375836; Trivandrum: 2320853; Udaipur: 5102254; Vadodara: 2341780, 5540299; Vijayawada: 2473620, 5563620; Visakhapatnam: 2752653; Warangal: 2552610.

Sale of IBS Prospectus and Application for 2004-06 Admissions will commence from July 01, 2003 onwards

Alternatively, Please ✂ here and mail / fax / e-mail this COUPON, along with your Brief details

☞ To The Admissions Officer (IBSAT), Campus Programs Admissions Dept., 45, Nagarjuna Hills, Punjagutta, Hyderabad 500082.
Tel: 040-5578-1301, 1302. 556-35745, 29879. Fax: 040-55781303. Email: ibsat@icfai.org

Sir, Please send me a copy of the ICFAI Business School MBA Program Prospectus (including Admission Test Fee), Towards the same, I am enclosing a Demand Draft for Rs.1000 drawn on ________________ *(Specify bank)* bearing no.____________ dated __________ in favor of "ICFAI University A/c IBS" and payable at Hyderabad.

Name : ______________________ Qualifications: ______________________
Address : ____
City : __________ State: __________ Pin: __________ Email: __________

(Photocopies of this Coupon can also be used).

BTBC603

IDP EDUCATION AUSTRALIA

IDP Education Australia, New Delhi
Tel: (011) 26213504, 26213667, 26467535, 26429767, 26215973, 26284404
Email: infor@delhi.idp.com
Chandigarh Tel: (0172) 741772,741331,741516
Email: info@chandigarh.idp.com
Mumbai Tel: (022) 22026505, 22042686, 22026509
Email: info@mumbai.idp.com
Chennai Tel: (044) 28333222, 28330950, 28330932, 28333057
Email: info@chennai.idp.com
Bangalore: Tel: (080) 5321988, 5321989
Email: info@bangalore.idp.com
Ahmedabad: Tel: (079) 6406226, 6403413
Email: info@ahmedabad.idp.com

Australian Universities offer more than 50 globally recognized Master of Business Administration programs providing students unlimited possibilities for enhancing their career prospects. Many Australian MBA are featured among the top business programs across the world in rankings published by Asia Pacific Inc., Financial Times and The Economist. International accreditation by AACSB, widely regarded as the world's premier independent agency for business administration and accounting degree programs has put some business schools in the major international league. Besides Australian Government Accreditation through CRICOS (Commonwealth Register of institution and Courses for Overseas Students) and the stringent ESOS (Education Services for Overseas students) legislation, this is an external sign of quality.

Some MBAs have a focus on the Asia Pacific region while others have links with Europe and North America like London Business School, JK Kellog GSM, Wharton School of Business etc. Australian universities are among the most international in the world. These agreements include staff and student exchanges, study abroad, research co-operation and collaborative agreements with many countries including India.

Business education that inspires leaders is built on a foundation of managerial knowledge and a faculty, capable of pushing the frontiers of that knowledge. That is why research activities form the core of the mission and philosophy of many business schools. Some of the other key advantage include: rigorous accreditation procedures to ensure that all courses are of the highest quality and standards, high quality staff, flexible programs, multiple entry and exit points, emphasis on workplace relevance, and real business needs and excellent facilities including study technique workshops, well resourced libraries, modern computer facilities, and international student services.

Emphasis is based on conceptual and critical thinking, and being able to debate and examine different arguments, rather than on role learning. Australian institutions are constantly upgrading their MBA programs to ensure that students are learning advanced skills for the current and future business worlds. Students also learn about social responsibility and business ethics, teamwork, entrepreneurship and innovation. There is an increased emphasis on information technology, globalisation and workplace diversity. Australian B-Schools don't just provide degrees but the means for continual learning and framework to understand the 'bigger picture' and make good decisions amidst the growing complexities of business. Besides this, the B-schools also provide a comprehensive selection of executive development programs, high-level customized and consulting activities such as executive coaching and programs specifically for frontline managers.

MBA programs range form 1 to 1.5 to 2 years of full time study. A double master MBA/MIT or MBA/MIE would take 2.5 years of study. To keep pace with competitive global business world Australian institutions are offering both generalist and specialised MBA programs. Some of the contemporary specialisations include Event Management. Communication Studies, Enterprise Resource Planning, Insurance, Training and Change Management, Agricultural Business, Operations Management and Sports Management.

February and July are the major intakes for B-Schools which follow a semester system while there are three commencement dates for those that have a trimester system. Admission is purely based on academic background, relevant work experience and English proficiency. In addition, some Schools also require a good GMAT score, 3 referees and statement of professional aims (in prescribed format) to assess the application. An IELTS score of 6.5 or above is mandatory, besides a first class (or upper second class) degree from a recognised Indian University. While most courses require at least 2 years of good quality work experience (not part time) there are a few programs offered for fresh graduates with good potential. Students need to apply about 5 months prior to commencement of course.

Cost for the whole course ranges from A $ 21,600 to A $48,000 while living expenses average about A$ 1000 per month. Australia is good value for money as it provides excellent living standards at lower costs than America, UK and Europe. There are a few scholarships offered and are very competitive. They are normally worth a few thousand dollars. The international Postgraduate Research Scholarship, which covers full tuition fee and living expenses, is awarded by the Australian Government to attract the best researches from around the world. International students are also permitted to work on a casual basis, 20 hours a week during semester and full time during vacation.

Career Services offered by Universities and Business Schools links students with industry and recruiting firms and provides personalised career advice and support. It has a successful record in identifying job opportunities and facilitating the placement of students, graduates and alumni in Australian-based and international positions. Australian MBAs are truly international in terms of curriculum and orientation. This helps internationalize the learning process and creates long lasting alumni and social networks. Famous Australian Alumni include Douglas N. Daff, Chairman of the Board and Chief Executive Officer, The Coca-Cola Company a graduate from AGSM. The University of New South Wales. Nearly 190,000 students are enrolled at Australian Universities. Currently more than 11,000 Indian students are enrolled at Australian Education Institutions with the majority being in business and related courses.

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Madhya Marg,
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746094, 741088. Fax: 741510.
E-mail: info@chandigarh.idp.com

CHENNAI
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20, Haddows Road, First Street
Tel: 28333222, 28330950,
28330932, 28333057 Fax: 28333464
E-mail: info@chennai.idp.com

MUMBAI
Express Building, 1st Floor,
Churchgate,
(Opp. Churchgate Railway Station)
Tel: 22026505, 22042686, 22026509,
22819878. Fax: 22026501.
E-mail: info@mumbai.idp.com

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International Trade Tower,
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Fax:0091-11-26853956, 26867841, 26867851
E-mail: iift@iift.ac.in

GENERAL INFO

Type of institute: Autonomous institute set up by Government of India
Year of establishment: 1963

STUDENT BODY

Students enrolled currently: 365

ACADEMICS

Director-General: Prabir Sengupta
Dean: B. Bhattacharyya
Chairperson, Foundational Programmes: Dr. Ravi Shanker
Placement Coordinator: K.K. Muthu
In-house Faculty: 39
Visiting lecturers on panel: 60

COURSES OFFERED

1. MBA (International Business)
Duration: Two-year full-ime
2. MBA (International Business)
Duration: Three-year eening
3. Executive Masters in International Business
Duration: One-and-a-half year
4. Certificate Course in Export Marketing
Duration: Four-month Evening

ADMISSION PROCEDURE

Admission test is a multiple choice objective type written test (in English). Duration of the test is two hours. It consists of about 200 questions covering English Comprehension, General Knowledge & Awareness, Logical Reasoning and Quantitative Analysis.

Venues for entrance examination: Ahmedabad, Bangalore, Bhubaneshwar, Chandigarh, Chennai, Coimbatore, Delhi, Dehradun, Guwahati, Hyderabad, Indore, Jaipur, Jamshedpur, Kochi, Kolkata, Lucknow, Mumbai and Visakhapatnam.

INSTITUTE HISTORY

The Indian Institute of Foreign Trade (IIFT) was set up in 1963 by the Government of India as an autonomous organization to help professionalize the country's foreign trade management by developing human resources; conducting research and consultancy for both the government and enterprise sector.

The quest for excellence has put IIFT among the TOP TEN Business Schools in India by Business Today - COSMODE B-School Survey 2002. The Institute ranks third in terms of international placements and fifth on the basis of average domestic salary offered among all the business schools in the country. The Institute has been given the status of Deemed University in May 2002 by the University Grants Commission. This is the only B-School in India to enjoy this recognition.

To retain its position as a top B-School and a highly rated research organization, IIFT has been strengthening its relationship with regional as well as international organizations by signing MoUs to develop networking among IIFT's peer. IIFT is going global to effectively cater to the growing professional education market. Towards that, it has two Campuses outside India at Dubai and Dar-es-Salaam, Tanzania.

IIFT's Campus is one of the best campuses in terms of physical facilities, amongst the top ranking business schools in India. Located in the Qutab Institutional Area, the campus spread over 6 acres of land, situated in the close vicinity of JNU and IIT, overlooking the green ridge and historical Qutab Minar, provides an ideal environment for academic excellence.

The facilities available on the campus include fully air-conditioned lecture halls with modern audio-visual aids, conference halls for round-table conferences, an auditorium of 500 seating capacity, MDP Centre, three computer centers, indoor games, sports ground, besides excellent residential facilities for the students. IIFT Library is one of the largest of its kind in the developing world, with a holding of around 70,000 volumes and subscribing to 700 journals with complete on-line cataloguing.

DATES & DEADLINES

Issue of Application form: Second week of September
Last date for submission: Second week of November
Written examination: Second Sunday of January every year
Group discussion: February 10 - March 8
Interview date: February 10 - March 8
Commencement of course: July 1

FINAL PLACEMENTS

Top 10 Recruiters
Last Year

Olam International, Singapore
Kaybee Group, Singapore
GG Impact Pte. Ltd, Singapore
Tata Administrative Services, Mumbai
Hindustan Lever, Mumbai
Price Waterhouse Coopers, Mumbai
Nestle, New Delhi
ITC, Hyderabad
TISCO, Jamshedpur
Maruti Udyog, Gurgaon

This year
Olam International, Singapore
Kaybee Group, Singapore
GG Impact, Singapore
American Devices, USA
Tata Administrative Services, Mumbai
Hindustan Lever
ITC Limited, Hyderabad
Bharti Tele-Ventures, New Delhi
Elekta Gulf, Dubai
Tata Consultancy Services, Mumbai

Average Salary Offered
Last Year (2000) Rs.7.08 lakhs per annum
This Year (2001) Rs.6.95 lakhs per annum

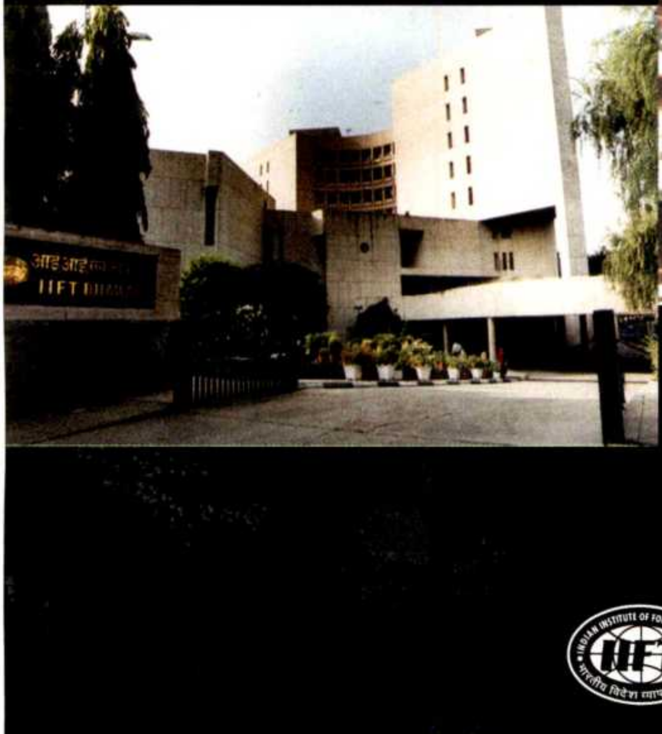
Highest Salary Offered
Last Year (2000) Rs.51.24 lakhs per annum
This Year (2001) Rs.48.50 lakhs per annum

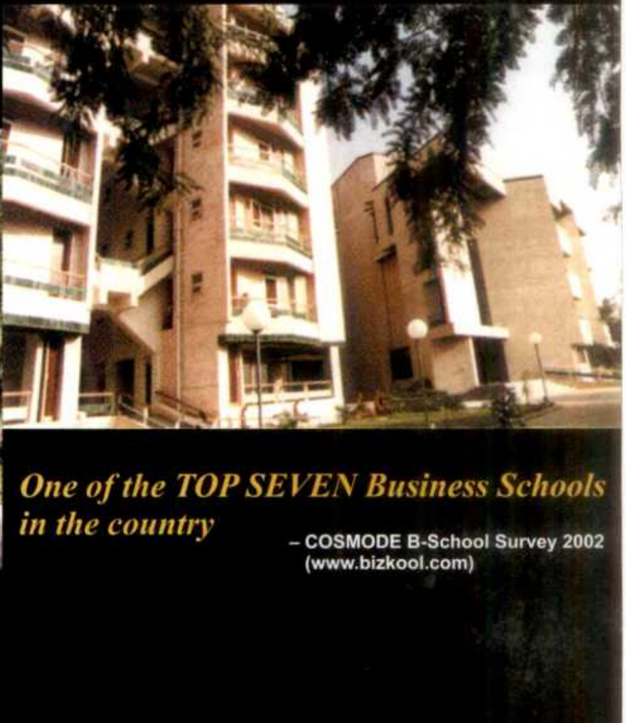
Lowest Salary Offered
Last Year (2000) Rs.2 lakhs per annum
This Year (2001) Rs.2.5 lakhs per annum

The only DEEMED UNIVERSITY among Business Schools in India

One of the TOP TEN Business Schools in the country

– *Business Today*, 9 Aug. 2002





One of the TOP SEVEN Business Schools in the country

– COSMODE B-School Survey 2002 (www.bizkool.com)

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WEBSITE : www.iift.edu

INSTITUTE FOR INTEGRATED LEARNING IN MANAGEMENT (IILM)

3, Lodhi Institutional Area, New Delhi 110 003
Telephone : (91-11) 24647820, 24647821
Fax : (91-11) 24647796
E-mail :iilm@iilm.edu

GENERAL INFO

Year of establishment: 1993

STUDENT BODY

Number of students enrolled currently: 650

ACADEMICS

Director : Dr. (Professor) Irfan A. Rizvi
Ms. Sandhya Prakash (Dean, Undergraduate Business School)
Faculty In-charge Placement's:
Prof. Jayanta Bose
Number of In-house Faculty : 52
Number of Visiting Lecturers on panel : 24
Total number of students enrolled currently : 750
Entrance examination format :
Written test (IIM-CAT for PGDBM program) + Group Discussion + Interview
Venues for entrance examination :
All IIM-CAT Centres in India

COURSES OFFERED

IILM Graduate School of Management
Post Graduate Diploma in Business Management (PGDBM) 120
Post Graduate Diploma in Management (PGDM) 120
MA in
International Business 45
Marketing 45
Finance and Accounting 45
IILM Undergraduate Business School
BSc (Hons) in Business and Management Studies (BBMS) 120
BSc (Hons) Business Management with Computing 60
BSc (Hons) Accounting and Finance 60
BSc (Hons) in Marketing 60
BSc (Hons) Business Studies and Law 60

DATES AND DEADLINES

Issue of Application form : September 1, 2003
Last date for submission of application form : January 15, 2004
Written examination date : Sunday, November 23, 2003 (CAT 2003)
Group Discussion & Interview date : March 2004
Date of course commencement : Monday, July 5, 2004

IILM HIGHLIGHTS

IILM regularly reviews and updates its course contents and benchmarks them with that of select B' Schools in India and abroad, and thus fine tunes it with the requirements of the corporate

In each of the courses offered at IILM, minimum four sessions are compulsorily conducted by corporate executives to provide industry perspective to the topics.

For holistic development of students, IILM has specialized programs and events like Total Personality Development (TPD), NGO Training, Eminent Guest Lecture Series (EGLS) and Leadership Forum.

To encourage academic excellence amongst students, IILM offers four merit scholarships on the basis of performance in the first term.

In addition to conventional areas of management, IILM offers specializations in emerging areas like Bio-technology, E-business, Health sector, Urban & Infrastructure sector, and Environment management.

REMARKS COLUMN

Institute for Integrated Learning in Management (IILM) has been in existence since 1993. It offers professional education in management at undergraduate and postgraduate levels following its unique philosophy of Integrated Learning. In addition, more than 50 strong faculty of IILM is also involved in research and consulting in diverse areas of business and social concerns.

The IILM has strategic alliances with and exchange arrangements with few internationally acclaimed educational institutions like University of Bradford (UK); Dublin Institute of Technology (DIT), Ireland; and Michigan Institute of Technology (USA).

IILM and its PGDBM program is accredited by National Board of Accreditation (NBA), and IILM has been rated Category A+ and ranked amongst top 15 Business Schools in India by AIMA - Business India / Standard - IMRB Survey (2001, 2003).

The alumni of various professional programs of IILM since 1994 are placed at respectably high positions in reputed business corporations in India and abroad. To know more about IILM and its programs make a virtual visit to www.iilm.edu or write to iilm@iilm.edu.

FINAL PLACEMENTS

Top 10 recruiters
Last year (2001-2002):

American Express
Asian Paints
e-Value Service
HDFC Bank
Hero Honda Motors
ICICI Prudential
LG Electronics India Ltd.
Nestle India
Philips India
Reliance Industries

This year (2002-2003):

ABN Amro
American Express
BPL India
e-Value Serve
ICICI Prudential
Kuehne & Nagel
Paharpur Business Center
Panacea Biotech
Standard Chartered Bank
The Times of India

Average Salary Offered
Last Year Rs. 1,80,000 per annum
This Year Rs. 1,60,000 per annum

Highest Salary Offered
Last Year Rs. 3,00,000 per annum
This Year Rs. 3,00,000 per annum

Lowest Salary Offered
Last Year Rs. 1,20,000 per annum
This Year Rs. 1,08,000 per annum

IILM

www.iilm.edu

Excellence Integrated

The AIMA Survey 2003 has categorized IILM as an A+ Business School. IILM is ranked 8th in terms of Intellectual Capital and 18th in terms of Admissions & Placements. Overall IILM is amongst the top 15 Business Schools in India and the best Private B-school in Delhi.

- IILM was founded in 1993.
- We are the pioneers of the Integrated Learning Concept in Management.
- 100% placement with IILM alumni excelling in business corporations in India and abroad.
- Centrally located Campus with modern infrastructure and state-of-the-art learning facilities. Campus atmosphere conducive to learning.
- Over 50 full time well-qualified and trained faculty members provide individual attention to all students.
- IILM's exclusive Total Personality Development programme includes courses on Public Speaking, Corporate Communication, TV Presentation and Foreign languages.
- IILM promotes ethical behaviour and provides holistic education to the students for their long term success as leaders.
- Strong industry interface, research and consultancy.

Post Graduate Programmes

- Two year Post Graduate Diploma in Business Management (PGDBM) (Recognised by AICTE)
- Two year autonomous Post Graduate Diploma in Management with specialisation in any one of the following subjects :
  - Health Care Management
  - Urban Infrastructure Management
  - Insurance and Risk Management
  - Media Management
  - Natural Resource and Environment Management
  - Social Sector Management
- One year Master Degree from the University of Bradford, UK
  - in International Business, Finance, Accounting & Management and Marketing.

Undergraduate Programmes

- Three year Undergraduate Degree from the University of Bradford
  - BSc. in Business & Management Studies
  - BSc. in Business Management with Computing
  - BSc. in Accounting & Finance
  - BSc. in Marketing
  - BA in Business Studies and Law
- Three year Undergraduate Degree from Dublin Institute of Technology, Ireland
  - BA in Journalism

Institute for Integrated Learning in Management
3 Lodhi Institutional Area, New Delhi - 110 003. Tel : 24647820. Email : adm@iilm.edu

INDIAN INSTITUTE OF MANAGEMENT, AHMEDABAD

Vastrapur
Ahmedabad,380015 India
Admissions Phone: 91 79 6324633
Fax:91 79 6306896
Email:admission@iimahd.ernet.in
Website:www.iimahd.ernet.in

GENERAL INFO

Type of School (Private/Recognised): Recognised by the Assocciattion of Indian Universities and the AICTE.

Year of Establishment: 1961

STUDENT BODY

Full Time Graduates: 363
Part-Time Graduates:Nil
Total Graduates Population: 363

ACADEMICS

Name of Dean: Prof Indira Parikh
Name of Principal: Prof Bakul Dholakia(Director)
Faculty Full-Time (Nos): 78
Faculty Part-Time (Nos) 22
Computer Terminals for Student use: 450 (Every student has separate computer for use)

COURSES OFFERED

Post Graduate Programme in Management,
Post Graduate Programme in Agri-Business Management
Fellow Programme in Management

ADMISSION PROCEDURE

For Postgraduate Programmes: Common Admission Test (CAT) followed by group discussion and interviews for short-listed candidates. Foreign residents can also apply with GMAT scores.

For Fellow Programme: Common Admission Test(CAT), or JRF, or GATE scores, followed by intervies for short-listed candidates.

DATES & DEADLINES[1]

Last date for issue of Application Form (date/month/year): 29/08/2003 (tentative)

Last date for submission of Application Form(date/month/year):20/09/2003 (tentative)

Written Examination Date (date/month /year):24/11/2003 (tentative)

Group Discussion Date (date/month/year): February/March 2004

[1] Admissions will finalize the dates later

FROM THE DIRECTOR

IIM Ahmedabad is expanding its horizon by attracting more budding managers from inside India as well as around the world. With increased student intake, IIM-A, which boasts of 1:5 faculty-student ratio, is proud to attract and retain best management faculty in different areas. The Institute which itself is an architectural monument provides infra-structural facilities that are of international standards.

Prof. Indira J. Parikh

INSIDE THE CLASSROOM

IIMA has pioneered and proliferated the case method of education in India. Concepts learnt are applied to real life situations. Focus is on decision making through case analysis. After analyzing over 1000 cases, students are well equipped to handle the most complex managerial challenges in real world. Seminars, lectures by established practitioners, management thought leaders sharpen the thinking process of students.

Prof. Sameer K. Barua, Chairperson
Post Graduate Program

RESEARCH & SEMINARS

Research at the IIMA is focused on areas that have maximum long run impact on management practitioners and scholars. Both theoretical and applied researches are encouraged. Working papers and research seminars provide means of disseminating ongoing research at the pre-publication stage and for cross fertilization with research carried out elsewhere.

Prof. Jayanth R. Verma, Chairperson
Research & Publication Committee

STUDENT LIFE

IIM Ahmedabad believes in producing leaders rather than managers. Be it Confluence-an International B-School Meet, Chaos-Biggest College Fest in India or Insight-Marketing Fair, each event is carefully carved to develop various facets of student personality. Student clubs activities range from finance, marketing, consulting to as versatile as photography, astronomy.

Mr. Brijesh Sarsar,
Student Affairs Council Coordinator

SUMMER PLACEMENTS

Total Number of companies visiting the campus:61

Name top 10 Companies:

Lehman Brothers
Hindustan Lever Limited
Procter&Gamble India Limited
National Kidney Foundation
Coca Cola India Limited
Citibank N A
Colgate Palmolive
Goldman Sachs
ICICI
Tata Administrative Service

FINAL PLACEMENTS

Total Number of Companies visiting the campus: 70

Highest Salary offered (Per Annum): Rs. 14 Lakhs (Domestic)[2], $90,000(Foreign)[3]

Average Salary offered: Rs. 11.5 Lakhs per Annum

[2] McKinesy

[3] Morgan Stanley.

Total Number of companies visiting the campus:70

Name top 10 Companies:

ICICILimited
Lehman Brothers Inc
HCL technologies Limited
Cognizant Technoligies Solutions
Hindustan Lever Limited
IBM Limited
Tata consultancy Services
UTI Bank Limited
Citibank N A
Goldman Sachs Inc

FEES

Tuition Fees (Rs. Thousands): 100 (per annum)

Hostel Fees (Rs. Thousands):32.5(per annum)[4]

[4] Includes Mess charges

SCHOLARSHIPS

Name of scholarship:SC/ST,IIM,Need based, Industrial, Aditya Birla, Student Exchange Programme.

Financial Aid to Students (Rs. Thousands): 3925

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Address: Bannerghatta Road, Bangalore,
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Fax: 91-80-6584050
Website: www.iimb.ernet.in

GENERAL INFO

Type of Institute: Set up and run by the Govt. of India
Year of Establishment: 1973

STUDENT BODY

Full-time: Around 450
Part-time: Around 240

Over 100 computer workstations are available to students 24/7. A fiber optic backbone network provides connectivity to all the hostel rooms. Access has been provided to almost all the latest software tools and some of the finest database. The Institute Library is housed in a building of 55000 sq ft carpet area spread over 4 floors. The Library functions round the clock all through the year except on the three national holidays. Almost all the activities of the library are computerized to make information seeking easy.

ACADEMICS

Director: Dr. Prakash G. Apte
Total faculty: 85
Full-time faculty: 70
Visiting faculty: 15

COURSES OFFERED

PG programme in Management - 2 years (this is the Institute's flagship programme)

Doctoral-level Fellow programme in Management - 4 years (Recognized as equivalent to PhD by the Association of Indian Universities and All India Council of Technical Education)

PG programme in Software Enterprise Management - 3 years part time for professionals in the software industry

PG Programme in Public Policy and Management - One year, for mid-career civil servants

Executive Education Programmes - Nearly 1500 executives receive training under this programme every year

FROM THE DIRECTOR

IIMB does not believe in resting on its laurels and has launched a number of new initiatives under the aegis of the IIMB vision - 2020 programme to become a truly global player in the area of management education, research and training with the underlying theme of "excellence through partnership". IIMB has been acknowledged as the best business school in India and is rated among the best in Asia. Change is constant in IIMB. Curriculum and pedagogical techniques are continually redesigned to stay abreast of the developments in the rest of the world. A conscious effort is made to select students from diverse backgrounds, levels of experience and cultures to provide different cultural and professional perspectives.The courses are a mix of theoretical inputs and practical insights gained from such interactions and provide students with a well-rounded perspective. The content and delivery of programmes at IIMB are at par with the best in the world.

INSIDE THE CLASSROOM

The teaching methods at IIMB have been developed over the years to bring about a change in attitude along with the learning experience. Excellent faculty takes all classes. They have substantial experience, research publication and industrial interaction. Use of learning tools like case analysis, simulation exercises and games, role-plays and presentations are encouraged. There is a strong emphasis on project work as part of the regular courses at the Institute. While working on these projects, students are required to interact with the business leaders from industry and quite a few of these projects are sponsored by the company. Bangalore provides an ideal opportunity for this as it has been in the midst of an economic and technological boom. Most companies are more than eager to use the energies of young and dedicated IIMBians.

RESEARCH & SEMINARS

IIMB faculty undertakes a wide variety of research studies, which form an integral part of the Institute's activities. These studies enable the faculty to continue to be at the cutting edge of management theories and practices.

ADMISSION PROCEDURE

The admission process is extremely rigorous.

SUMMER & FINAL PLACEMENTS

The Placement office at the Institute helps students secure both summer and final placements with leading companies. Over 100 leading companies from India and abroad participate in the campus placement activity.

SCHOLARSHIPS

Various scholarships and financial aid schemes are available for eligible students.

STUDENT LIFE

A stint at the IIMB is definitely an experience of a lifetime. Student activities are a gamut of initiatives, which combine together with curricular activities. Academic Council was a first in India till the time other Institutes started emulating IIMB. The Alumni Committee endeavours to keep the bond between the alumni and the Institute strong years after they have passed out. Cultural Committee (Culcomm) pitches in with the annual cultural festival, intra IIMB cultural activities, freshers extravaganza and farewell celebrations - Culcomm is the parallel life line that you just cannot do without! Forum for Industrial Interaction acts as an interface between IIMB students and the industry. ICON - IIMB's very own Consulting Club! Dedicated to delivering quality end -to-end consulting solutions to the industry, drawing from a pool of over 400 brilliant minds and world-class faculty, ICON means business! MaSh keeps the creative juices flowing and Networth brings you back to numbers and structure! Sigma is called the backbone of IIMB; without its support no other students' body can run its show. Startup Club is the hub of entrepreneurial wizards. With business being accused of ignoring their social responsibilities and commitments, IIMB students give their work to the society through Vikasana - the social service club at IIMB. The Placement Committee interacts with corporate partners through the year and organizes the Summer, Lateral and Final recruitment process.

Is your organisation ready to meet the impending challenges?

IIMB
Announces

FAST TRACK GENERAL MANAGEMENT PROGRAMME *(3rd Batch)*

(An Executive Education Programme)

21 July to 27 Sept 2003

Programme Directors:
Prof. MS Narasimhan, Prof LS Murty & Prof G Shainesh

Today, organizations are facing many new challenges. Globalisation, advancement in technology and communication have transformed the business environment. Managers need new skills to direct organizational transformation.

Why would managers consider ten weeks at IIMB worthwhile?

Fast Track General Management Programme (FTGMP) is a refreshing, holistic and exhilarating experience for managers. The confluence of managers from diverse industries, world-class faculty and leading edge research inputs produce a unique environment for innovative thinking and new ideas.

Managers face three enormous pressures. The first is a lack of time to think. The second is a growing unease about the dynamics of competition in their markets. The third is a glimmer of business overview borne out of limited exposure to other functional areas. The FTGMP provides the opportunity to step back and understand how the rules are changing and why ideas must evolve in tandem.

IIMB believes the FTGMP experience will have a profound impact on how organizations create the future. The programme aims to build individual's confidence and capability to meet the complex challenges of business leadership and thereby help the organizations to create an entirely new perspective on individual roles at work.

The programme is designed to introduce contemporary business models and practices to the participants; develop competence over the disciplines and skills associated with general management; and provide guidance to think through advanced business strategies with a global perspective. IIMB Campus provides an excellent ambience for introspection and learning.

Participant Profile

- Mid-career professionals with potential for growth who have not had the benefit of formal B School education.
- Technologists seeking to broaden their knowledge of business and move on to general management responsibilities as business heads

Organisational sponsorship is essential.
Last date for receipt of nomination: 4 July 2003

IIMB will award
Certificate of Participation
to the participants

For detailed brochure on FTGMP and other Executive Education Programmes please contact:

IIMB
तेजस्वि नावधीतमस्तु

JR Saligram, Chief Programmes Officer
Indian Institute of Management Bangalore
Bannerghatta Road, Bangalore 560 076, India. Tel: 080-6993203.
Programme Help Desk: Ph 080 6993264 Fax: 080-6584004
Email: edp@iimb.ernet.in www.iimb.ernet.in

Enrol as a Manager, Emerge as a Leader!

INDIAN INSTITUTE OF MANAGEMENT CALCUTTA

Joka, Diamond Harbour Road, Kolkata 700 104
Telephone: 033 24678300-06/8313
Fax: 033 24678307/8062
Email: director@iimcal.ac.in

GENERAL INFO

Type of school: Government-run
Year of Establishment: 1961

STUDENT BODY

Number of students enrolled currently: Around 200

ACADEMICS

Director: Prof. Shekhar Chaudhuri
Principal for MBA Programme:
Prof. Raghabendra Chattopadhyay
Placement Coordinator: Prof. M. Mohanty
In-house faculty: 78
Visiting faculty: 11

COURSES OFFERED

1. Master of Business Administration
2. Post Graduate Diploma in Management
3. PGDCM
4. Post Graduate Diploma in Business Management
5. Fellow Programme

All courses at IIM Calcutta are full-time

ADMISSION PROCEDURE

Entrance examination format: Candidates are selected for personal interviews on the basis of their performance in the CAT (Common Admission Test), which is held every year

Venues for the entrance examination: Major cities all over India

DATES & DEADLINES

Issue of application form: July 14, 2003
Last date for submission:
September 12, 2003
Written examination: November 23, 2003
Group Discussion: March 2004
Interview: March 2004
Commencement of Course:
End of June 2004

FROM THE DEAN

IIM Calcutta has pioneered management education in the India. The institute is proud of its intellectual capital base with best quality of students and internationally experienced faculty resources. The academic program structure provides for strong foundation in all core area and offers a menu of over eighty specialization courses.

INSTITUTE PROFILE

The Indian Institute of Management Calcutta was started in 1961 as the country's very first national management institute for post-graduate studies, and research and training in management. It was established in collaboration with the Alfred P. Sloan School of Management of the Massachusetts Institute of Technology, the Ford Foundation, the Government of India, the Government of West Bengal and the Indian business community.

The institute is committed to the mission of "emerging as a centre of excellence in all spheres of management education by remaining rooted in the ethos and societal values germane to Indian culture. It occupies a pride of place among India's top business schools and its management graduates are second to none in quality and talent.

The institute's first-rate infrastructure includes air-conditioned lecture halls, an ultra-modern auditorium-cum-convention centre, a Management Development Centre for training of managers and administrators, the largest business library in India and a campus-wide IT network.

RESEARCH & SEMINARS

IIMC publishes journals - (a) Decision and (b) Journal of Human Values. During 2002 - 03, faculty published 11 books, 11 Chapters, 71 international & 28 national research papers & 38 newspapers or magazine articles. Faculty organized two international conferences, presented 77 conference papers, several working papers, cases and reports.

PLACEMENTS

A large number of top-ranked global and domestic companies visit the IIM Calcutta campus for recruitment of its graduates

Top 10 recruiters in 2001-2002

Lehman Brothers
Deutsche Bank Global Markets
McKinsey & Co.
Boston Consulting Group
PWC Global
HSBC London
ICICI
Unilever group
Procter & Gamble
Citibank N.A.

Average domestic salary: Rs 5.6 lakhs per annum
Highest domestic salary: Rs 14 lakhs per annum
Median foreign salary: $92,000 per annum.
Highest foreign salary: $1,60,000 per annum

Top 10 recruiters in 2002-2003

Deutsche Bank Global Markets
McKinsey & Co.
Boston Consulting Group
PWC Global
HCL Technology
ICICI
Unilever Group
Procter & Gamble
Cognizant Technology Solutions
Citibank N.A.

Average domestic salary: Rs 6.2 lakhs per annum
Highest domestic salary: Rs 14 lakhs per annum
Median foreign salary: $76,000 per annum
Highest foreign salary: $95,000 per annum.

MANUFACTURING / OPERATIONS MANAGEMENT

1. Chopra Sunil and P Meindl, 2000. Supply Chain Management: Strategy, Planning and Operations; Prentice Hall
2. Christopher Martin, 1998. Logistics and Supply Chain Management: Strategies for Reducing Cost and Improving Service, 2nd Edn.; Financial Times Prentice Hall
3. Goldratt Eliyahu M and Jeff Cox, 1992. The Goal: A Process of Ongoing Improvement; North River Press Publishing
4. Goldratt Eliyahu M, 1998. Essays on the Theory of Constraints; North River Press Publishing
5. Handfield, Robert B and Ernest L Nichols Jr., 1999. Introduction to Supply chain Management; Prentice Hall
6. Heiser Jay and B Render, 2003. Principles of Operations Management, 5th Edn.; Prentice Hall
7. Krajewski Lee J and Larry P Ritzman, 2002. Operations Management: Strategy and Analysis, 5th Edn.; Prentice Hall
8. Oakland John S, 1999. Statistical Process Control Textbook; Butterworth-Heinemann
9. Schonberger Richard J, 1996. World Class Manufacturing: The Nest Decade: Building Power, Strength and Value; Free Press

PEOPLE / HUMAN RESOURCES MANAGEMENT

1. Bell Chip R, 1996. Managers as Mentors: Building Partnerships for Learning; Berrett-Koehler
2. Colenso Michael, 1997. High Performing Teams; Butterworth-Heinemann
3. Craig Malcolm, 1994. Analysing Learning Needs; Gower Publishing
4. Crawley John, 1995. Constructive Conflict Management: Managing to Make a Difference; Nicholas Brealey
5. Dessler Gary, 2002. Human Resource Management, 9th Edn.; Prentice Hall
6. Edvinsson Leif and Michael S Malone, 1997. Intellectual Capital; Harper Business
7. Fisher Martin, 1995. Performance Appraisals; Kogan Page
8. Fitz-Enz Jac, 2000. The ROI of Human Capital: Measuring the Economic Value of Employee Performance; AMACOM
9. Grote Richard C, 1996. The Complete Guide to Performance Appraisal; AMACOM
10. Hersey Paul, Kenneth H Blanchard and D E Johnson, 2000. Management of Organisational Behaviour: Leading Human Resources, 8th Edn.; Prentice Hall
11. Johnson Ron, David Redmond, and Meredith Belbin, 1998. The Art of Empowerment: The Profit and Pain of Employee Involvement; Financial Times Prentice Hall
12. Kinlaw Dennis C, 1997. Coaching: Winning Strategies for Individuals and Teams; Gower Publishing
13. MacLennan Nigel, 1996. Counselling for Managers; Gower Publishing
14. Pareek Udai, 2002. Training Instruments in HRD and OD, 2nd Edn.; McGraw-Hill
15. Revans Reginald, 1980. Action Learning: New Techniques for Management; Blond & Briggs
16. Robbins, Stephen P, 2002. Organisational Behaviour, 10th Edn.; Prentice Hall
17. Roberts Gareth, 1997. Recruitment and Selection; Institute of Personnel and Development
18. Tornow Walter W and Manuel London, 1998. Maximising the Value of 360-degree Feedback: A Process for Successful Individual and Organisational Development; Jossey-Bass
19. Ulrich David (Ed.), 1998. Delivering Results: A New Mandate for Human Resource Professionals; Harvard Business School Press

Prepared by Prof. S. Balasubramanian of T.A. Pai Management institute, Manipal. © May 2003

Continued on Page No 114

INDIAN INSTITUTE OF MANAGEMENT, LUCKNOW

Address :Prabandh Nagar, Off Sitapur Road, Lucknow
Telephone: (0522) 2361891-97/2732285
Fax: (0522) 2361843/361840E
mail:roshan@iiml.ac.in

GENERAL INFO

Year of establishment:1984

STUDENT BODY

Number of In-house Faculty: 53
Number of Visiting Lecturers on Panel:30
Total number of students enrolled currently: 500
Entrance examination format: CAT
Venues for entrance examination: All over the country

ACADEMICS

Director-In-Charge: Prof. S. Chakraborty
Placement Chairman: Prof. R. Srinivasan

COURSE OFFERED

Post Graduate Programme	240
Fellow Programme	Varies

ADMISSION PROCEDURE

Aptitude Test and Interview for XII passouts with minimum 60 per cent score in XII.

DATES AND DEADLINES

(For 2003-2005 Batch)
Issue of Application form: July 15, 2002
Last date for submission of application form: September 20, 2002
Written examination Date: November 24, 2002
Group discussion date March 10-28, 2003
Interview date: march 10-28, 2003
Date for commencement of course: June 30, 2003

SUMMER PLACEMENTS

Students of the school undergo their summer training at an array of companies like:

Names of Top 10 Recruiters
Last Year
Suntec
TCS
Ramco Systems
ICICI
HLL
GE CAPS
HCL TECH
Shaw Wallace
Torrent
UTI Bank

Names of Top 10 Recruiters
This Year
INFOSYS
HCL-TECH
HLL
GE-CAPS
CTS
UTI Bank
PEPSI
ONIDA
SBI CAPS
WIPRO

Average Salary Offered
Last Year 6.98 lakh
This Year 6.18 lakh

Highest Salary Offered
Last Year 12.5 lakh
This Year 14.0 lakh

Lowest Salary Offered
Last Year 2.5 lakh
This Year 3.5 lakh

REMARKS COLUMN

Situated at the outskirts of the historic and culturally rich city of Lucknow, the Indian Institute of Management (IIML), was established in 1984, by the Government of India, as a national level school of excellence in management science.

IIML's mission is to be a global, socially conscious and integrated school of management, contributing towards management development, both in India and abroad. Towards this, IIML undertakes a diverse range of academic activities and interventions aimed at creation, dissemination, and application of management knowledge and practices. These include : the Post Graduate Programme; the Fellow Programme; the Management Development Programme; Research Programmes; and Consulting Programmes. IIML has also entered into collaborative arrangements with leading business schools and research centres in India, Europe, Canada, South and Southeast Asia.

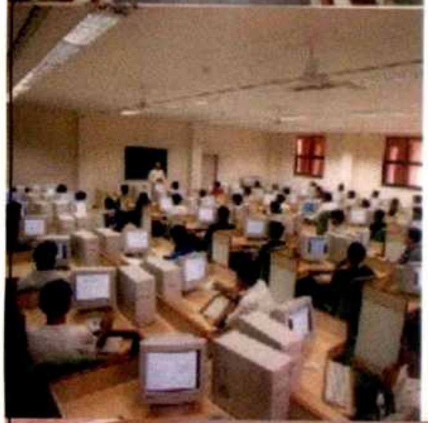
The Institute has state-of-the-art computing and class-room facilities, supported by an extensive library of books, journals, films, and databases. IIML academic programmes are fully residential. The serene and pollution free campus is well equipped to meet all the essential requirements of its residents.

LEADERS

SOCIAL ARCHITECTS

CHANGE AGENTS

More than a qualification - a life changing experience. This is our management education philosophy. One that you will experience first hand in our truly international approach to teaching, research, consulting & training initiatives through seamless industry integration, global resources and supported by state of the art infrastructure. Come to IIM Lucknow and share a great learning experience with people just like you. People who have decided to expand horizons and manage their own future. Discover how YOU can be part of IIM Lucknow.



IIM Lucknow
Mastering A World Of Change

Indian Institute Of Management
Prabandh Nagar, Off. Sitapur Road,
Lucknow - 226 013 (INDIA)
Tel : (0522) 361891 to 361897
Fax.: 0522-361843/40
www.iiml.ac.in

INDIAN INSTITUTE OF PLANNING & MANAGEMENT (IIPM)

New Delhi, Mumbai, Bangalore, Chennai, Pune
C-10, Qutab Institutional Area,
New Delhi - 110 016
Admissions Phone : 011-51799994/3/1
Fax : 011-51799911
Email : info@iipm.edu
Website : www.iipm.edu

GENERAL INFO

Type of school : Private Business School
Year of establishment: 1973

STUDENT BODY

Full time Graduates : 120
Part Time Graduates : None
Total Graduates Population: 120

ACADEMICS

Dean : Prof. Arindam Chaudhuri
Faculty Full-Time (Nos) : 75
Faculty Part-Time (Nos) : 40
Computer Terminals for Student use : 100

COURSES OFFERED

MBA, BBA

ADMISSION PROCEDURE

Written Test, Group Discussion, Personal Interview

DATES & DEADLINES

30th April

SUMMER PLACEMENTS

Total number of companies visiting the campus :140

Name of top 10 companies :

Price Waterhouse Coopers
Ernst & Young
HSBC
Pepsi Foods
Samsung
Reliance Infocomm
Essar
GE Capital
Prudential ICICI
HDFC

FROM THE DEAN

IIPM has evolved as one of the leading Centres of Excellence (CoE) in Academics and Research. As an educational institute, we continuously aim at developing a three dimensional personality in our students viz pursuit of knowledge, commitment to economic, social and cultural upliftment of masses and cultivation of taste for literature, fine arts etc. The academic software and hardware at IIPM is the manifestation of the same, which is an end result of our vision and incessant interactions with industry.

INSIDE THE CLASSROOM

The underlying objective is to train a new generation of entrepreneurial managers, who can face with confidence emerging global challenge of international markets, while remaining committed to remove massive poverty of Indian masses within a generation. So classes at IIPM become domains for intellectual stimulation wherein students are exposed to pedagogy, which is challenging and thought provoking. Dissemination of knowledge is through continuous interaction with the students, where contemporary case lets, case studies and role-plays are resorted to justify and defy conventional theories.

RESEARCH & SEMINARS

Seminars are an integral part of IIPM academic calendar. Eminent personalities like Mr. James Gordon [Senior Resident Representative, (India), IMF], Dr. Charles Savage (Father of knowledge Management), Prof. Md. Yunus, Mr. T N Seshan etc and other such erudite speakers and thought leaders from academia, corporate world and civil society are regular visitors at IIPM seminars. Research forms the cornerstone of IIPM academic initiatives. IIPM is UNDP's the key partner institution in the 'Leadership for Results Programme 2003' for People Living with HIV/AIDS as well as it has been nominated by the World Bank Institute to be on its ' Steering Committee 2003/2004 for the Corporate Social Responsibility Conference. Moreover Applied Research on issues concerning Policy (macro) and Principles (micro) of Economics, Industrial markets; behavioural sciences, developmental issues etc are undertaken.

FINAL PLACEMENTS

Total number of companies visiting the campus: 140

Names of top 10 companies:

Price Waterhouse Coopers
Coca-Cola India
Citicorp E Serve
Asian Paints
Valvoline Cummins
HSBC
ICICI Prudential
IDBI
HCL Infosystems
Ranbaxy Laboratories

Highest salary offered : Rs. 5.00 Lacs per annum
Average salary Offered : Rs. 3.00 Lacs per annum

FEES

Tuition Fees : Rs. 4 lac

SCHOLARSHIPS

Name of Scholarship : Merit cum Means
Amount of aid : Upto 75% of tuition fee

STUDENT LIFE

We tend to implement a Systems (holistic) approach in the knowledge we impart. Cultural events like AMAZE, AAGMAN and other extracurricular activities include sports, performing arts, community services etc. infuses the spirit of teamwork. Moreover a lot of 'space' is given to the students in terms of organising seminars and conferences, initiating newsletter and magazines, forming clubs etc to develop their individual personalities.

Overall life at IIPM for students is one where they rediscover the wheel of life, develop perspectives for pertinent and extant issues and surge ahead in life with new vigour.

IIPM: Dare to think beyond ..

The Roots

An Institute oriented towards the promotion of corporate growth, based on innovation and entrepreneurship in harmony with national economic planning objectives, aiming at a sustainable and ethically acceptable growth rate. This was a conceptualized by the eminent professor of IIM Bangalore, Dr. M. K. Chaudhuri. He traveled extensively throughout Europe to study similar institutions and The Indian Institute of Planning and Management was formally registered in the year 1973. Since then, IIPM has grown to become one of the most respected business schools in South Asia. Outlook Magazine ranked IIPM 4th all over India in the 2002 Business Schools' survey, in terms of industry interface. **Business Barons' Best B-Schools of India Survey rated IIPM in the elite list and ranked it 8th over all in India. It also ranked IIPM 2nd in India in terms of industry interface and rank 4th in terms of course contents.** The MBA, BBA, Fellowship & Executive Education programs of IIPM have created some of the highest standards in the management field. The Times of India, India's number one newspaper, in its June 2002 issue, branded IIPM alumni as 'Winners All The Way', considering the outstanding placements year after year. 100% placements, year after year, even before students pass out of the campus.

Intellectual Capital

IIPM has one of the highest students to faculty interaction ratios amongst South Asian business schools. IIPM's faculty have been recognized and ordained as being experts in their respective fields. **The European Commission funded Wilton Park Conference recently rated The Dean, IIPM, Professor Arindam Chaudhuri, as being in the top 50 leading thinkers of South Asia.** Powerhouses like Confederation of Indian Industry, IIT Kharagpur have commended IIPM faculty consecutively. Renowned academic stalwarts are regularly accessible for student interactions, thus creating one of the most spectacular and thrilling learning experiences. **Dr. M. B. Athreya (former professor IIM Calcutta), Dr. Sfeir Younis (World Bank, Switzerland), Mr. Vasant Sathe (former Chairperson, Congress, India), Professor Mohd. Yunus (Chairman, Grameen Bank, Bangladesh), Mr. Natwar Singh (former Member of Parliament, India), Mrs. Preetha Banerjee (United Nations, Geneva), Mr. T.N.Seshan (former Election Commissioner, India), Mr. Ernest J. Pope (former MD, Nestle Australia), Dr. Bruno Walser (President, Sulzer, Europe), Professor Rajan Saxena (Director, IIM Indore), Mr. Pranab Mukherjee (former Planning Commission member, India) are some examples of individuals who have graced the students of IIPM as faculty for lectures or seminars or other academic programs.** These are some of the reasons why so many Fortune 500 corporations in Asia regularly utilize IIPM's consulting services. Consequently, the most important aspect of IIPM's faculty is that due to the fact that they are constantly involved with various consulting projects in the industry, they are unequalled in their practical orientations while imparting their respective courses.

Courses

The MBA, BBA, Fellowship & Executive Education programs of IIPM along with the GOTA (Global Opportunities & Threats Analysis) programs supported by organizations like United Nations (Geneva), World Bank, ILO, Nestle S.A Vevey, INSEAD, IMD Lausanne, Credit Suisse etc have created some of the highest standards in the management field. The course coverage at IIPM courses is phenomenally greater than standard MBA courses throughout the world.

For example, in the light of globalization, students joining any course at IIPM have the option to undergo **Global Study Tours** in selected countries in the Asian, Australian, European and American continents. During the overseas study tour, students are taught a special paper on Global Opportunities & Threats Analysis with assistance from leading faculties and organizations across the globe. The attempt is to make the students aware of how a truly global economy works and also to bring a fresh outlook to life conducive to entrepreneurial learning.

Infrastructure & Facilities

In terms of infrastructure, campus and technology support, IIPM is rated amongst the top institutes of the country. IIPM's academic campuses in Asia are based in New Delhi, Mumbai, Bangalore, Pune & Chennai. Along with strategic partners International Management Institute (IMI) Belgium, IIPM is in the middle of the industrial capitals of Europe, namely Antwerp & Brussels. Students and participants, for their various projects and extra curricular activities, regularly utilize services of air-conditioned auditoriums, conference rooms with availability round the clock, computer laboratories with 24 hours online support, libraries extending across complete floors with some of the world's leading titles, classroom teaching infrastructure comparable to the most advanced in the world, sports facilities (Billiards, Swimming, Golf, Lawn Tennis, Table Tennis, Badminton, Cricket), and yes, the inimitable Canteen.

Strategic Alliances

IPM's strength lies in the number of alliances that they have with organizations across the world. **IIPM made news recently when it got selected by United Nations Development Program (UNDP) as its key partner in India and got nominated by World Bank Institute to be on the steering committee for specific CSR initiatives.** IIPM's alliance with Planman Consulting provides IIPM with access to leading international management consulting paradigms. Planman Consulting has been rated as India's largest multi-interest consulting firm providing IIPM students & faculty one of the most efficient learning curves in today's business world The Indian Institute of Planning and Management has set before it the twin tasks: (1) to eorient education and research towards the needs of both the private and public (government) sectors and (2) to establish he link between the national economic planning and the development of private enterprises in our country.

IIPM dares to look beyond, and proudly understands that what they teach today, others adopt tomorrow . . .

INDIAN INSTITUTE OF SCIENCE & MANAGEMENT

IISM Campus, Pundag, Ranchi 834004
Telephone: 0651-22242060
Fax: 0651-2240630
E-mail: rch_iism@sancharnet.in

GENERAL INFO

Year of Establishment: 1985

STUDENT BODY

Students enrolled currently: 43

ACADEMICS

Dean: Dr D. Panigrahy
Principal: Prof. R.A.K. Verma
Placement Coordinator: Dr. J.K. Nandi
In-house faculty: 10
Visiting lecturers on panel: 26

COURSES OFFERED

PG diploma in Business Management - Two years
Diploma in Hotel Management - Three years
PG diploma in Tourism & Travel Industry Management - One year

ADMISSION PROCEDURE

Entrance examination format: CAT
Venues of entrance examination: All over India

DATES & DEADLINES

Last Date for issue of Application Form : 22nd November 2003
Last Date for submission of Admission Form : 22nd November 2003
Written Examination:Through Common Admission Test conducted by IIMs on 23rd November 2003
Group Discussion Date Last week of February / First
Interview DateWeek of March

FEE

1st Semester Rs. 55225.00
2nd Semester Rs. 34000.00
3rd Semester Rs. 38000.00
4th Semester Rs. 340000.00

FROM THE DEAN

The Indian Institute of Science & Management, Ranchi is known for its highly qualified and dedicated faculty members eager to support the students and their interests through effective counseling and guidance.

IISM has been attracting young and bright students from all over the country ever since its inception. Seventeen batches have passed out from the institute today, and many IISm graduates are holding responsible positions in industry and business.

IISM's two-year PGDBM course has been designed with new and innovative patterns. It has also been reinforced with the multi-faceted inputs of management education and state-of-the-art method training. Apart from PGDBM, IISM offers a one-year PG diploma in Tourism & Travel Industry Management (IITTM Gwalior Chapter) and a three-year graduate diploma in Hotel Management. The institute has a 100 per cent placement record.

RESEARCH & SEMINARS

In order to have a practical exposure to the students of management, internal and external seminars relating to the burning topics are regularly conducted. Keeping in view the importance of seminars and researches, the institute has been conducting national & regional seminars which are addressed by eminent professionals, educationist and researchers from all over the country.

STUDENT LIFE

The institute uses a host of pedagogical tools ranging from lectures, case studies, role plays, field project work, presentation & simulations in order to facilitate comprehensive learning. The institute in addition to classroom works focus on integrated & holistic approach to decision making & problem solving and emphasis on ethical consideration and value orientation programmes.

HOSTEL FEES

Separate hostel facilities for girls & boys.
Fooding & Boarding charges approx Rs. 2000/= Per Month.
Hostel Caution money deposit Rs. 6000/= (Refunded after completion of courses)

Estd : 1985

INDIAN INSTITUTE OF SCIENCE & MANAGEMENT

(भारतीय विज्ञान एवं प्रबंधन संस्थान)

(Recognised & Aided by by All India Council of Technical Education, Ministry of H R D, Govt. of India)

PGDBM

2 Year Post Graduate Diploma in Business Management

with dual specialization in Marketing/ Finance/ HRM/ Information Technology

Eligibility: Graduate with 50% marks/appearing candidates can also apply.

HM&CT

3 Year Diploma in Hotel Management & Catering Technology

(Affiliated to State Board of Technical Education, Govt. of Jharkhand. Examination conducted by State Board of Technical Education, Govt. of Jharkhand)

Eligibility: 10 + 2 with 50% marks / appearing candidates can also apply.

PGDTTIM

1 Year P G Diploma in Travel & Tourism Industry Management

Chapter of I.I.T.T.M., Gwalior, Deptt. of Tourism, Govt. of India

Eligibility: Graduate / appearing candidates can also apply.
Examination conducted by I.I.T.T.M., Gwalior, Deptt. Of Tourism, Govt. of India

Highlights

- ESTD 1985. Institute is spread in vast sprawling area and classes are conducted in state of the art multi storied buildings with well stocked library, computer center, practical laboratories, conference room, auditorium & cafeteria.
- The only Institute whose students secured the maximum merits & top positions year after year.
- Most renowned teaching & visiting faculty.
- Separate hostel facilities for girls & boys.
- Modern Audio-visual Teaching aids
- Ongoing Personality Development Programmes through unique 'BM Forum' a students' association
- Regular Case Presentation by students
- Faculty's efficient involvement in research work and consultancy projects
- Need based continually updated curriculum

Application Form & Prospectus

100% placement assistance track record through campus/ off campus interview in TOP NOTCH organisations in India & abroad. The institute has provided the society with successful entrepreneurs.

Application Form & Prospectus can be obtained from the office counter by paying cash Rs. 500/- or by sending a DD of Rs. 550/- in favour of **Indian Institute of Science & Management**, payable at **Ranchi. It can be also downloaded from our website and submitted alongwith the DD of Rs. 500** in favour of **Indian Institute of Science & Management**, payable at **Ranchi.** The **last date** of submission of completed application form for all the courses is **15th June 2003.**

SEPARATE HOSTEL FACILITIES FOR GIRLS AND BOYS

Creating Leaders through Values and Vision....

IISM CAMPUS, PUNDAG, RANCHI - 834004

Phone: (0651) 2242060, Fax: **(0651) 2240630,** Website: **http://iism.hypermart.net** E-mail: **rch_iism@sancharnet.in**

IIT - MADRAS

Address: Humanities and Sciences Block,
IIT - Madras, Chennai - 600 036.
Telephone: 044 - 2257 8458
Fax: 044 - 2257 8430
E-Mail: mba@iitm.ac.in

GENERAL INFO

Year of establishment: 2001

STUDENT BODY

Number of students enrolled currently: 38 (2nd Year) + 42 (1st Year)

ACADEMICS

Head: Prof. R.N.Anantharaman
Placement Coordinator: Prof. L.S. Ganesh
In-house Faculty: 17
Visiting Lecturers on Panel: 20

COURSES OFFERED

MBA
MS
Ph.D

ADMISSION PROCEDURE

Entrance Examination Format: JMET
Venues for entrance examination: All major cities in India

DATES & DEADLINES

Date of Examination for JMET 2003: December 12, 2003
Date of Announcement of results for JMET 2003: January 4, 2004
Issue of applications for MBA at IIT-Madras: January 6, 2004
Last date of receipt of filled-in applications at IIT-Madras: January 31, 2004
Tentative dates of Group Task/Interview: March 2004

For information on the Joint Management Entrance Test (JMET) 2003, visit: www.gate.iitm.ac.in
For information on the MBA Programme at IIT-Madras,
mail to: mba@iitm.ac.in

FEES

A. One time payment - Statutory (S) (Rs.1200/= Rupees One Thousand Two Hundred) and Non-Statutory (NS) (Rs.2750/= Rupees Two Thousand Seven Hundred and Fifty only).

B. Semester Fees - Statutory (S) (Rs.27000/= Rupees Twenty Seven Thousand only) and Non-Statutory (NS) (Rs.5600/= Rupees Five Thousand Six Hundred only)

C. Deposits (Refundable) - (Rs.5000/= Rupees Five Thousand only)

The data is a part of the Statutory Semester Fees

(a) Tuition: Rs.25,000/- (Rupees Twenty Five Thousand only)

(b) Hostel: (only for Hostel inmates; payable every semester)

(Statutory) Seat Rent: Rs.550/- (Rupees Five Hundred and Fifty only)

(Non-Statutory) Establishment Charges: Rs.2,300/- (Rupees TwoThousand Three Hundred only)

Additionally, the hostel inmates will also incur monthly mess bills.

SCHOLARSHIPS

There are no scholarships in the programme as of now.

MESSAGE FROM THE HEAD

The B.Tech-MBA combination has become recognized as the most valuable combination of degrees in the market place. Our programme was started in 2001, and the response has been very good. The aim of our programme is to develop business graduates with a holistic perspective, versatile in the functional areas, and specialized in some industrial and business domains.

Our students have won top honours in several national business school competitions. They have been recruited and offered attractive careers by nationally and internationally reputed organizations.

KEY FEATURES OF THE IIT-M MBA EXPERIENCE

IIT, Madras represents a powerful brand in education with an extensive alumni network in all sectors of the global economy.

Our outstanding faculty has a strong research orientation, with global exposure and expertise. Research outputs become classroom inputs, effectively delivered with state-of-the-art multi-media technology.

We offer students the opportunity to learn from industry leaders, via specially convened guest lectures and interactions.

Students are domiciled in an idyllic, wooded campus that offers spectacular amenities for self-improvement and a liberal education. We provide access to a variety of extra-curricular activities, such as yoga, music, tennis and swimming.

As established leaders in engineering education, we can also provide access to interdisciplinary learning in a variety of technical disciplines.

Our academic year is divided into four quarters, enhancing breadth and depth of coverage.

IIT
Madras

MBA

A learning and living experience to last a lifetime.

- **Uniquely structured, rigorous programme –**
  Eight quarters spread over two years; only four/five courses per quarter; intensive learning; strong analytical orientation.
- **Distinctive and comprehensive curriculum –**
  Core courses on Industrial and Business Domains, Systems Thinking, Project Management, Supply Chain Management and Total Quality Management. Specializations in Business Consulting, Systems and IT, Project and Operations, Finance, Marketing, and HR.
- **Renowned faculty – full-time and visiting.**
  Ph. D's from globally reputed institutions; research publications in reputed journals; consulting services and executive education programmes offered to world class companies.
- **State-of-the-art facilities – Library, Computers, Classrooms, Learning Resources, Hostels, and Campus amenities –**
  Automated Library; Electronic Classrooms; Hostel Connectivity; access to the best technological resources; widest choice for on-campus leisure and recreation activities.
- **Regular interaction with business and industry.**
  Guest lectures, industry projects, industry-centric professional events, seminars and workshops … the works.
- **Enviable global alumni network.**
  IIT Madras alumni are in top business positions just about everywhere.
- **Placement opportunities with top companies.**
  GE, Ingersoll Rand, Frost & Sullivan, TCS, Infosys, Redington, MindTree, Sify, Sherpa, CalSoft, ………, they all came ……… and recruited.

Dates and Deadlines

1. Date of Examination for JMET 2003 : 14.12.03.
2. Date of Announcement of results for JMET 2003 : 04.01.04.
3. Issue of Applications for MBA at IIT Madras : 06.01.04.
4. Last date of receipt of filled-in applications at IIT Madras : 31.01.04.
5. Group Task / Interview : March, 2004.

MAC/IIT-320

For information on the Management Programme of IIT Madras mail to
mba@iitm.ac.in
or visit : www.mba.iitm.ac.in

INSTITUTE OF MANAGEMENT EDUCATION

178, G.T. Road, Sahibabad,
Ghaziabad - 201 005
Admissions Phone No.: 2621424 /2621425
Email: ime@ndf.vsnl.net.in,
imesbd@del3.vsnl.net.in
Website: http:/www.imesahibabad.org

GENERAL INFO

Type of School: Private, unaided and approved by AICTE, (Min. of HRD) Govt. of India
Year of Establishment: 1996

STUDENT BODY

Full-Time Graduates - PGDM: 120
Part-Time Graduates: Nil
Total Graduates Population: 120

ACADEMICS

Dean: Dr. N. Mishra
Principal: Prof. H.P. Gupta
Faculty Full-Time: 15
Faculty Part-Time: 14
Computer Terminals for Student use: 140

COURSES OFFERED

Post Graduate Diploma in Management (PGDM)

ADMISSION PROCEDURE

Selection is done through CAT/MAT

DATES & DEADLINES

Last date for issue of application form: May
Last date for submission of application form (date/month/year): May-end
Group Discussion Date: Second week of June
Interview Date: Second week of June

SUMMER PLACEMENTS

Total Number of companies visiting the campus: 40

Top 10 Companies

Standard Chartered Bank
NHPC Ltd
ICICI Bank
Luxor Writing Instruments Ltd.
Amul
TELCO
Punj Lloyd Ltd.
Devyani Beverages (Pepsi & Pizza Hut),
Centurion Bank
Hindustan Times Ltd.

FINAL PLACEMENTS

Total number of companies visiting the campus: 45

Highest Salary Offered : Rs.2.95 lakhs per annum
Average Salary Offered : Rs.2.03 lakhs per annum

Top 10 Companies

Standard Chartered Bank
Reliance Infocom Ltd.
Panacea Biotech Ltd.
Maruti Suzuki Ltd.
UTI Bank Ltd.,
Dabur India Ltd.
Bajaj Auto Ltd.
Telco Ltd.
Dainik Jagran Ltd.
Avery India Ltd.

FEES

Tuition Fees
Rs. 2 lakhs (full course)
Hostel Fees
Rs.15000 to Rs. 20,000 (annual)
Students Loan
The institute has arrangements with various with Public/Private Sector Banks for providing loans to students

SCHOLARSHIPS

Merit-based scholarship is provided each year to students.

FROM THE DIRECTOR

Out of the box thinking and true innovation can be achieved through exposure of existing knowledge received with creativity. IME has the wherewithal to prepare well-equipped professionals who can achieve success in unpredictable, challenging situations in the work environment. IME endeavours to arm its students with sound knowledge in their chosen subjects so that they can assume effective leadership roles with effortless ease.

INSIDE THE PREMISES

IME premises are home to rich greenery, large open spaces, playgrounds and well-designed blocks. The library has a wealth of several thousand books and periodicals. Students now spend a large part of their time in the three Computer Centers - the multimedia centre, the high tech corner and cyber zone, which provide high-speed access to the Internet round the clock.

CORPORATE LIAISON

Learning through the experiences of industry captains is something IMEians relish. Paper presentations, seminars, debates and discussions are a continuous feature on the IME calendar. The Centre for Corporate Interaction and Management Development organizes seminars periodically. The Corporate Relation and Placement Centre (CRPC) strives to coordinate between industry and students.

STUDENT LIFE

Extended usage of the well-stocked library and the state-of-the-art Computer Centre and year-round sporting activity are top priority at the institute.

Students celebrate the Annual IME Festivals - Manthan and E-Kranti - with great gusto. These two events give students an opportunity to display their talent.

The IME also has a Students Club, which is a multi-dimensional forum that facilitates all-round personality development of the students of the institute.

आईमी

IME

तमसो मा
ज्योतिर्गमय

29th
Ranked
in
INDIA

AMONG TOP 35 B-SCHOOLS

Growth is
our Motto

IME has taken several landmark steps towards becoming one of the finest institutions in India.

IME is ranked 29th amongst India's Most Admired B-Schools by Business Barons (Jan. 2003), as per study conducted by "Taylor Nelson Sofres Mode (TNS Mode)" (the world's second largest marketing research company), ranked 3rd in U.P. (after IIM, Lucknow and IMT, Ghaziabad). Also by COSMODE Business-Today Survey (Aug. 4, 2002) as 29th among best B-Schools in India.

Poll conducted by:

BUSINESS BARONS
THE MAGAZINE FOR CORPORATE LEADERS
9th Ranked January 2003 ▪ Vol.7 No.7

business today
29th Ranked 4 August, 2002

THE WEEKLY NEWSMAGAZINE
OUTLOOK
8th Ranked 10 September, 2001

Business India
THE MAGAZINE OF THE CORPORATE WORLD
3+ Ranked 18 September to October 1, 2000

PGDM (2 yr) ▪ MCA (3 yr) ▪ MIS (2 yr) ▪ BBA (3 yr) ▪ BCA (3 yr) ▪ LLB (Integrated) (5 yr)

PGDCA (2 yr) ▪ PGDMSM (1 yr) ▪ B Ed. (1 yr) ▪ B Lib. & IS (1 yr) ▪ LLB (3 yr)

NSTITUTE of MANAGEMENT EDUCATION(Society)

78, Main G. T. Road, Sahibabad, Ghaziabad-201005 (Delhi - U.P. Border), Tel.: 0120 - 2621424, 2621425 Fax : 0120 - 2625870
E-mail : ime@ndf.vsnl.net.in, imesbd@del3.vsnl.net.in, Website : http://www.imesahibabad.org

• Institute of Management & IT • IME Law College • IME College of Education

INSTITUTE OF MANGEMENT STUDIES

Lal Quan, G.T. Road,
Ghaziabad- 201 009
National Capital Region, India
Phone : 0120-2866033/35/38/39
Fax: 0120-2866034
E-mail: ims@del2.vsnl.net.in
Website: ims-ghaziabad. ac.in

GENERAL INFO

Type of Institute: Private, Awarded
ISO-9002 Certificate by STQC, Ministry of IT, Govt. of India
Year of Establishment: 1990

STUDENT BODY

Number of enrolled students: About 2000

ACADEMICS

Dr. Shanmugam Mahalingam
Director General
Total number of faculty members: 125
Full time faculty: 75
Part time: 50

COURSES OFFERED

PGDBM - 2 Years Full Time
(Approved by AICTE & Granted Equivalency as MBA by AIU)
PGDTM-2 Years Full Time
(Approved by AICTE)
PGDBM - 3 Years Part- time
(Approved by AICTE)
MIB - 2 Years Full Time
(Affiliated to CCS University, Meerut)
MCA - 3 Year Full Time (Approved by AICTE and Affiliated to U.P. Technical University, Lucknow)
BBA - 3 Years Full Time (Affiliated to C.C.S. University, Meerut)
BCA - 3 Years Full Time (Affiliated to C.C.S. University, Meerut)
B.Sc (Biotechnology) 3 Years Full Time (Affiliated to C.C.S. University, Meerut)
B.Sc (Microbiology) 3 Years Full Time (Affiliated to C.C.S University, Meerut)

IMS ENGINEERING COLLEGE

B.Tech. 4 Years Degree Courses (Affiliated to U.P. Technical University, Lucknow)
- Bio-Technology
- Computer Science & Engineering
- Electronics and Communication Engineering
- Information Technology

ADMISSION PROCEDURE

Admission to the PGDBM and PGDTM courses are as per the guidelines of the AICTE and admission to the Degree courses are as per guidelines of the concerned University.

Applications Forms are available as per following schedule:
PGDBM and PGDTM Courses :Oct/Nov
Degree Courses (CCS University): May/June
MCA and B.Tech. Courses (U.P. Technical University) February/March
Entrance Test: PGDBM and PGDTM Courses: December/January
MCA and B.Tech Courses (Joint UPMCAT & UPSESAT Test)
Interview and Group-Discussion : PGDBM and PGDTM Courses: Jan/Feb

SUMMER PLACEMENTS

No. of companies Visiting the Campus:58

Top Ten companies

HSBS, Coca Cola, LG Electronics, Samsung, Ds Group, Mc Kinsey, British Airways, KUONI, Sita Travels and ICICI,

FINAL PLACEMENT

Companies visiting the campus: 75

Top Ten companies

ICICI, Thomas Cook, Johnson & Johnson, Le Meridian, Standard Chartered Bank, Apollo Tyres, Tata Group of Companies, Reliance Infocom Ltd, PNB Housing Finance and Sahara Airlines.

Average Salary: Rs. 2.50 lakhs p.a.

FEES

Tuition Fees:
PGDBM F/T : Rs. 1.10 lakh per annum
PGDBM P/T : Rs. 30,000 per annum
PGDTM : Rs. 30,000 per annum
Fee Structure of B.Sc, BCA, BBA, MIB, MCA and B. Tech Courses is as per University Norms
Hostel Fees : Rs. 25,000 per annum
Mess charges : Rs. 15,000 per annum

SCHOLARSHIPS

Scholarships to the meritorious students is awarded on the basis of their rank in the pursuing course examinations.

FROM THE DIRECTOR

Institute of Management Studies (IMS), Ghaziabad is one of the premier corporate-promoted business schools, which was established in 1990 by a group of industrialists, academicians, philanthropists and social workers to impart value-based professional education in the field of Business Management, Tourism Management, Engineering Science, Bio-Science and Computer Science. Over the years, the IMS has grown and evolved into an Institution of repute and remains outstanding among the corporate-promoted business schools of the country. The IMS is one of the few academic institutions which has been awarded an ISO 9002 certificate by STQC, Ministry of Information Technology (Government of India) and its PGDBM programme has been recognized as equivalent to MBA degree by by Association of Indian Universities.

ON THE CAMPUS

The facilities of the IMS include air-conditioned class rooms, air-conditioned seminar halls, modern hostel accommodation, well stocked library, round-the-clock internet facility, advanced laboratories equipped with latest computing facilities, indoor and outdoor sports and recreational facilities, banking and postal services etc. Labs are networked through fiber optic media and are certified by AVAYA.

RESEARCH & SEMINARS

The Institute regularly organizes Personality Development Programmes like CEO Lecture of the Year, Corporate Seminars, Cultural Fests, Excursion/Study Tours in India and abroad.

STUDENT LIFE

MELANGE, an Inter College Management and IT Bonanza is a grand event on the Institute's activity calendar. Academicians, Bureaucrats, Vice-chancellors and Ministers participate in this Mega Event and exchange their views on the current state of technical and managerial education. Seminars, quizes and business simulation games are the main features of Melange. Institutions from the National Capital Region participate.

Admission open for 2003 Session

INSTITUTE OF MANAGEMENT STUDIES
GHAZIABAD

IMS
GHAZIABAD

Our Mission

"To inculcate world class competencies in the functional areas of Management, Information Technology, Tourism, Bio Sciences and Engineering"

IMS Ghaziabad is one of the premier corporate promoted business schools which was established in 1990 by a group of Industrialists, Academicians and Social Workers to impart value based professional education in the field of Business Management, Tourism Management, International Business, Engineering Science, Bio-Science and Computer Science. Over the years, IMS has grown and evolved into an Institution of repute offering excellent placement opportunities to its students and remains outstanding among the business schools in the country.

The Institute has State-of-the-art infrastructure including separate hostels for boys and girls, recreation and transport facilities, lush green environment, air conditioned class-rooms, fully stocked library, well equipped 4 computer labs, separate lab for internet surfing attached with library, computer and library facility at hostel in night hours; bank branch in campus, canteen, air conditioned conference hall, etc.

PGDBM (FULL TIME) Duration : 2 years	**POST GRADUATE DIPLOMA IN BUSINESS MANAGEMENT** (Equivalent to MBA Degree granted by Association of Indian Universities) Approved by AICTE, New Delhi Eligibility: Graduation in any discipline with 50% marks
PGDTM (FULL TIME) Duration : 2 years	**POSTGRADUATE DIPLOMA IN TOURISM MANAGEMENT** (Approved by AICTE, New Delhi) Eligibility: Graduation in any discipline
PGDBM (PART TIME) Duration : 3 years	**POST GRADUATE DIPLOMA IN BUSINESS MANAGEMENT** (Approved by AICTE, New Delhi) Eligibility: Graduation in any Discipline with 50% marks having 2 years of work experience
PGDBM (DLP) Duration : 3 years	**POSTGRADUATE DIPLOMA IN BUSINESS MANAGEMENT** Eligibility: Graduation in any discipline with 50% marks having 2 years of work experience
MCA (FULL TIME) Duration : 3 years	**MASTERS IN COMPUTER APPLICATION** Affiliated to U.P Technical University, Lucknow Eligibility: Graduation with 50% marks and Maths at 10+2
MIB (FULL TIME) Duration : 2 years	**MASTERS IN INTERNATIONAL BUSINESS** Affiliated to C.C.S University, Meerut Eligibility: Graduation with 45% Marks
BBA (FULL TIME) Duration : 3 years	**BACHELOR OF BUSINESS ADMINISTRATION** Affiliated to C.C.S University, Meerut Eligibility: 10+2
BCA (FULL TIME) Duration : 3 years	**BACHELOR OF COMPUTER APPLICATION** Affiliated to C.C.S University, Meerut Eligibility: 10+2 with Maths at 10th level
B.Sc (FULL TIME) Duration : 3 years	**BACHELOR OF SCIENCE (BIO-TECHNOLOGY)** Affiliated to C.C.S University, Meerut Eligibility: 10+2 with Biology
B.Sc (FULL TIME) Duraton : 3 years	**BACHELOR OF SCIENCE (MICROBIOLOGY)** Affiliated to C.C.S University, Meerut Eligibility: 10+2 with Biology & English with 55% Marks

IMS ENGINEERING COLLEGE

Offers following 4 year B.Tech Degree Course in :

- **Bio-Technology**
- **Computer Science and Engineering**
- **Electronics and Communication Engineering**
- **Information Technology**

To apply : Application forms can be obtained from Institute's counter as per rules & regulations of different courses

INSTITUTE OF MANAGEMENT STUDIES
Lal Quan, G.T. Road Ghaziabad - 201019
National Capital Region, INDIA
Ph. : 0120 -2866033/35/38/39 Fax: 2866034
E-mail : ims@del2.vsnl.net.in; URL: ims-ghaziabad.ac.in

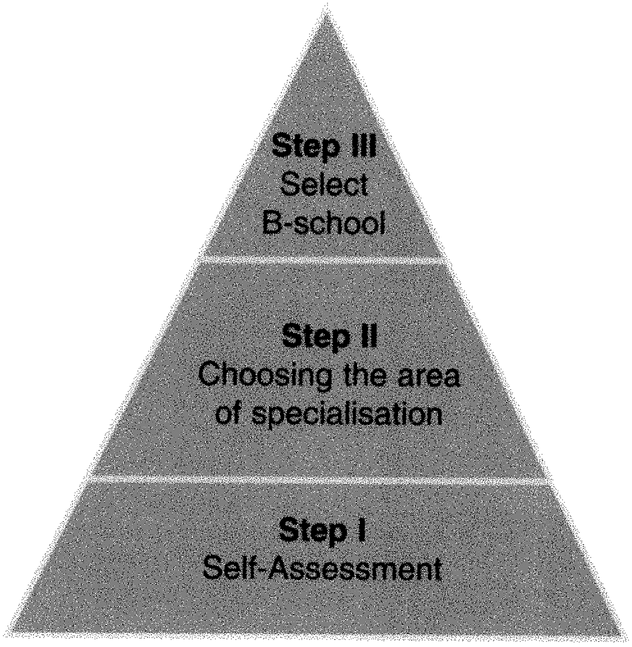
IMS ENGINEERING COLLEGE
N-H 24, Adhyatmik Nagar, Ghaziabad- 201018
Ph. : 0120- 2769235, 2769662; Fax: 0120-2769235
E-mail: imsec_gzb@yahoo.com
Web site: www.ims-ghaziabad.ac.in, www.imsec.net

IMS Ghaziabad does not have any branch in the country

A successful career is the key to happiness, satisfaction and all the good things that one aspires for in life. An MBA (Master of Business Administration) or a postgraduate degree/diploma from a Business School (B-School) is an ideal springboard for a progressive and rewarding career. Whilst such a course is great - it is important to choose your school, and the rewards and remuneration depend significantly on the B-School you graduate from.

Therefore the choice of the school to do the MBA program becomes a major issue and frequently torments the majority. What confounds most is that all these programs at various schools tend to look similar in almost clone like fashion. The options available are similar too. This article attempts to determine what one must do before one goes about deciding the right fit for oneself vis-à-vis a B-school. Like everything else in life, there are a multitude of factors to be considered when selecting a B-School and the program, which you wish to undergo. You should plan to spend a significant amount of time and effort before deciding which B-School and Program you must attend. Such an analysis will pay off handsomely as then one can zero in on a best fit. For quite some time, MBA graduates have been in high demand and the future looks extremely rosy as well given the current vicissitudes of the business environment.

It is advisable to follow a systematic approach to the whole process. A good course and a suitable program will provide a direction to life after an MBA. It is important that the B-School chosen takes you to the career choice you wished for and that which fits your aspirations. A simple step-by-step advice is listed below:



STEP I - Self-Assessment:

There are two distinct parts to this - in the first part you need to understand the drivers behind which you are doing an MBA course, what is your focus i.e. the life you wish to lead post MBA and the other, is your own personal capabiltiy matrix.

Post MBA- Career:

This is the key to why you want to do your course. Soul-searching is the first step in choosing the right course, determining it early on makes the difference. This has to be in line with ones capabilities and dreams. The opportunities offered to business students are so diverse that you risk spreading yourself too thin, if you fail to focus your efforts. The course and the B-school you choose are supposed to be an enabler and a door opener.

Most companies are selective about the B-Schools they visit and have pre-determined rules and procedures about what they wish to offer in terms of positions and pay packets. Many times your dream companies do not visit the schools you belong to. This is real heartbreak time and all the effort you put in does not reap the right benefits.

So the right thing to do would be to Choose and Plan - Well in advance. A good time to start is at least 2-3 years before you get your Bachelors degree. Remember it is a competitive world and it is getting worse by the day...especially for getting into a B-School of your choice.

Determining your own capability Matrix:

One needs to make an honest self-analysis and determine ones own strengths and weaknesses, aptitude, likes and dislikes. One needs to build ones own capability based matrix and assess which B-school to spend energy in terms of the admission procedure.

The clearer your goals and objectives, the more you will draw from your business school. Clearly your competency in academics and your ability to handle entrance exams will determine which B-school will accept you. A host of market intermediaries that help with self-assessment programs exist. These programs help determine where you will fit. This has more than one benefit - Not only will you increase your chances of admissions but you will not end up wasting time, energy and money on B-schools.

B-School committees favor applicants who can present themselves well and know what they want from the school. This includes knowing your limitations and strengths in a realistic manner. Such forthrightness is expected of managers in real life to know what to go for in a practical manner.

Let us examine a few likely questions:

- Am I sure that this is the field for me and am I motivated to follow the same?
- Why should I pursue an MBA? What am I hoping to accomplish through my graduate work?
- What should be my options and specializations?
- What would be the duration of the program like? Is it full time or part time?
- Is the program offered at enough institutions so I have a choice?
- Are the programs and the B-schools recognized and accredited?
- Will it pay enough?
- What do I want my life to be like a few years after completing the degree?

STEP II - Choosing the area of specialization:

Having established what one can do and wants to do, one needs to identify and build a skill inventory along with a gap analysis of the requirements. Then, based on what you're good at, and the needs you've identified, get the school brochures for information. The gaps are what the B-school should give you. For example if you are an Engineering student and you are an introvert and you have a good head for numbers you would do well to seek a school which specializes in Finance.

If you have work experience then you need to draw your needs in line with your experience. The best way to start is by evaluating your situation and current job opportunities and outlook in the areas you zero in on:

- What work do you hope to do in future?
- What are your chances of success?
- What are your abilities and interests?
- What are the market demands?

Once you've narrowed down the kind of Programme and specialization that's for you, you can start looking at schools. Remember that you must have alternate specialisation choices, especially if you are not aiming for a top B-School. Selecting a business school is no easy process. Admissions to good B-schools are a task by itself.

STEP III -Select College

Finally how do you choose from the top MBA schools to find the school that best matches your own aspirations and requirements?

The following checklist details some important factors that you need to consider:

- When did the school begin and the ranking and Brand Equity of the school
- The School offerings in terms of preferred specialization subjects
- The percentage of applicants accepted and the graduation rate
- The admission requirements, procedures and time-tables for exams etc.
- The student support services like Campus life and other the basic facts like location when situated outside your domicile and costs involved.
- Placement services and statistics: the factors that might determine the earning potential at graduation
    - Average salaries for graduates with work experience
    - Average salaries for graduates without work experience
    - The percentage of graduates employed within placement week

- Alumni Network, Relationships of the college with the corporate world, tie-ups and affiliations with other international universities
- Criteria concerning the teaching philosophy of the school.
    - Student/Faculty ratio
    - Class size
    - Guest Lecture Faculty and their background
    - Seminars held by College
    - Theory or Case Study Approaches taken and the entire pedagogy
- Infrastructure of the college-present and planned -Visit the campuses of any business schools you think you would like to attend

Information is readily available on the Net and magazines such as Business Today carry out regular surveys, which can also be used to collect the necessary information.

As you are collecting information, keep ruminating about your goals. As you learn more about what programs are available, you may want to change your mind about what you really want to do. Give yourself room to be flexible.

Once you have the big picture, you would more or less have a fix on the road ahead.

By Anuj Bhargava

Anuj Bhargava is a Senior Consultant with Tata Consultancy Services, and the Chairman of IMCI, Bombay Chapter. He is a visiting faculty at Jamnalal Bajaj Institute of Management Studies and other top B-Schools.

The views expressed in the article are solely that of the author. It does not constitute any endorsement by Business Today.

INDO-AMERICAN SCHOOL OF BUSINESS

47-14-18, Dwarkanagar Main Road
Visakhapatnam
Telephone: 0891-2701445, 2543732
Fax: 0891-2531046
E-Mail: iasb_vizag@yahoo.com
Website: www.indoamericanin.org

GENERAL INFO

Year of Establishment: 1993

STUDENT BODY

Students enrolled currently: 120

ACADEMICS

Chief Mentor: Venkateswar Pujari
Coordinator: Dharma Kirthi
In-house faculty: 8
Visiting lecturers on panel: 16 (also 500-plus industry professionals)

COURSES OFFERED

MBA with the following elective streams: Marketing, Finance, Human Resource Management

ADMISSION PROCEDURE

Written test and Interview
Venues for entrance examination: All major metros

DATES & DEADLINES

Issue of application form:
July 1, 2003
Late date for submission:
August 5, 2003
IBS admission test:
July 25 (Bangalore),
July 28 (Chennai),
August 5 (Mumbai),
August 7 (Ahmedabad),
August 10 (New Delhi)
August 12 (Kolkata)

Interview: As per schedule above

Commencement of course:
August 25, 2003

FROM THE DIRECTOR

The greatest master has made us little masters, each representing the universe in microcosm. All it takes is that moment of understanding, that right environment, those right people around, to trigger the process of unlocking the infinite energy of knowledge, wisdom, awareness, realization, and self-actualization.

At Indo-American, we strive to facilitate this process to develop a master craftsman who in turn perpetuates this very process. Ten years of educating students in diverse streams have reinforced our belief in the limitless ability of humankind to perform astonishing deeds, given the freedom and inspiration to do so.

Faith is a force that can move mountains. Indo-American makes every individual aware of this potent power within himself, the expression of which can work great deeds to the collective benefit of humanity. Indo-American provides space (time) and freedom for the creative spirit in every individual to blossom and spread its purest fragrance that reaches beyond the physical senses.

Indo-American inculcates, induces and initiates the 'never say die' spirit of perseverance in every individual, without which no difficult task is accomplished and no battle is won. Perseverance is the fuel that helps sustain during times of adversity and travail.

Indo-American nurtures and nourishes the spirit of gratitude and generosity that are but manifestations of one another. These virtues help the students remain humble and humane in any situation.

Indo-American subscribes to and practices the Olympian ideal of scaling greater heights, moving at the speed of thought and exploring beyond known horizons.

TEACHING METHODOLOGIES WITH A DIFFERENCE

The teaching methodologies practiced at the Indo - American School of Business incorporate the latest advances in technology; audiovisual aids, computer simulation, the Internet, to list a few. An emphasis is laid on learning through experience.

This emphasis requires the student to participate in the regular field trips and industrial training sessions, live projects and study tours to major corporations in India and abroad, depending upon the stream chosen.

Theory is presented in novel ways and subtly reinforced by real life problems incorporated into projects. All theory is interspersed with project work to prevent monotony or burnout.

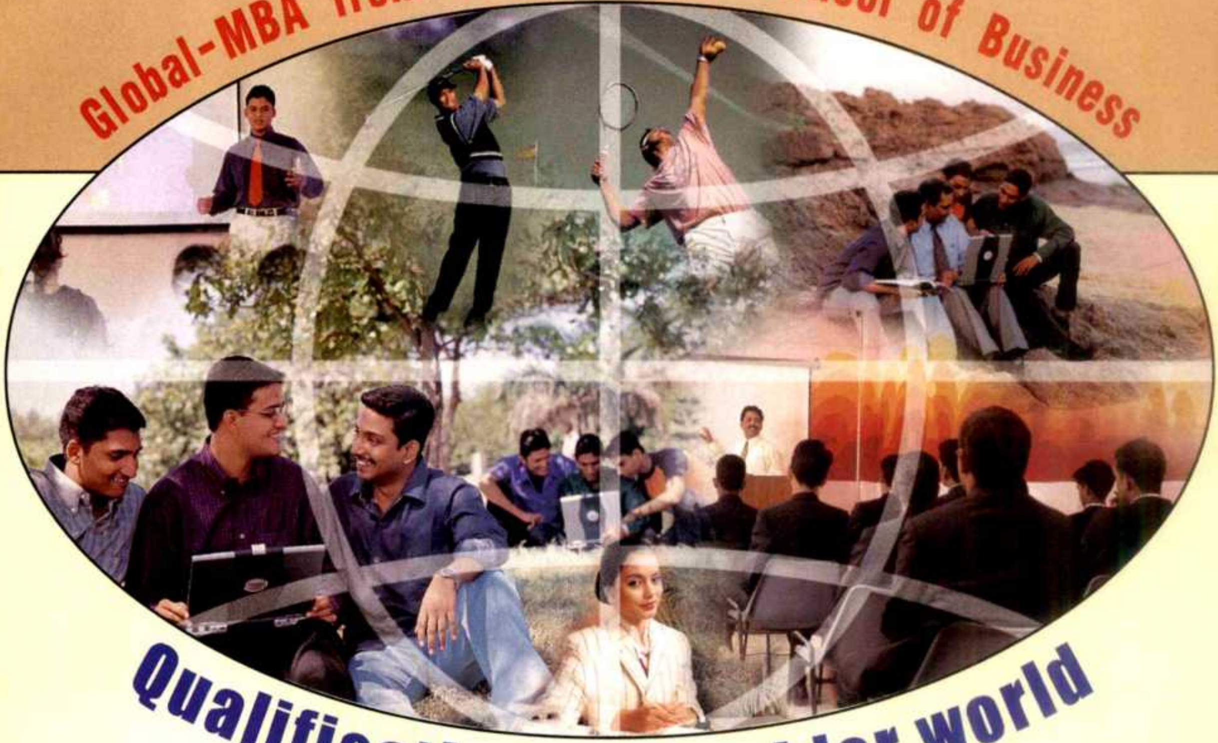
To acclimatize the student to stress situations, often seemingly impossible tasks and deadlines are given, necessitating sleepless nights, staggered food timings an complicated routines.

Classes are often held outdoors, sometimes scheduled, most often not, to introduce surprise elements and unpredictability into the daily routine.

Students are exposed to a wide variety of knowledge domains including sessions on global culture, etiquette, presentation skills and business communication, business ethics and even lectures on matters spiritual.

Stress management techniques, yoga and meditation are an integral part of the learning experience, because the ability to maintain poise, balance and calm at all times is an essential quality of a successful manager.

Global-MBA from Indo-American School of Business



Qualification for a wider world

Global-MBA is innovative because it combines learning with doing in a highly practical course that is tailored to the needs of worldwide organizations.

While the structure of MBA program remains broadly the same, both the content and delivery have been completely overhauled in response to the speed of change in the business environment and the increasing impact of globalization.

The salient features of G-MBA include :

- ★ 500 professional managers working in diverse industries form the core faculty.
- ★ Theoretical and practical input throughout the duration of the course, conducted one month each at various business capitals - Hyderabad, Bangalore, Chennai, Mumbai, Ahmedabad, Delhi and Kolkata.
- ★ Students evolve into global managers through real time experience, an unheard of concept in any business school.
- ★ Specialisation in three disciplines - Marketing, Human Resources and Finance.
- ★ Internship for one full year with three different companies.

The format of G-MBA suits the needs of working candidates also, whether joining on their own or sponsored by their company.

GLOBAL-MBA

Duration : 2 years
(One Year Theory - One Year Internship)

Eligibility : Any Degree

Admission : CAT/MAT/ATMA Score and Personal Interviews in major metros

Academics : 3956 hours

(Twice the time spent in other Business Schools)

Theory	24%
Case Studies, Simulations, Business Games, Workshops & Project Work	21%
Internship	55%

Value Added Learning : 720 hours

Lifestyle Management	28%
Meetings with living legends, Art of Living, International culture, cuisine and etiquette	42%
Orientation to Values & Global Perspective	30%

Prospectus and Application

Obtain your copy by sending a demand draft for Rs.500/- drawn in favour of "Indo-American School of Business" payable at Visakhapatnam.

INDO-AMERICAN SCHOOL OF BUSINESS
47-14-18, Dwarakanagar Main Road,
Visakhapatnam - 16
Tel: 0891-2701445, 2543732 Fax: 0891-2531046.
E-mail: iasb_vizag@yahoo.com

- Last date for receipt of application is July 15, 2003.
- Interviews during the first week of August in all major metros.
- Classes commence from September 2.

For more details: **Cell. 98483-55710.** Website: www.indoamericanin.org

JAGAN INSTITUTE OF MANAGEMENT STUDIES

3, Institutional Area, Rohini

*JAGANNATH INTERNATIONAL MANAGEMENT SCHOOL MOR POCKET -105 KALKAJI

Admissions Ph: 011 - 27042284
Fax: 011- 27054106
*011- 26442957 Fax:011-26220998
Email jims@vsnl.com
*Jnims@vsnl.com
Website:www.jimsindia.org
* www.jagannath.org.

FROM THE DIRECTOR

At JIMS, we strongly believe in quality of course curriculum. The competent and qualified faculty is keenly involved in constantly updating the syllabus in view the industry requirements and market needs. Our philosophy is to provide an ideal learning environment where teachers take pride in shaping the overall personality of students just like a sculpture does. The time spent at JIMS is a lifetime investment.

INSIDE THE CLASSROOM

We, conduct a fine blend of theory and practice. The emphasis is on education rather mere studies. Case studies of corporate practitioners, work-shops and interactive mode of discussion are our preferred styles. The maximum retention is achieved by going through the grid of learning. Absorbing, reflecting and applying. Students and industry value the cutting edge provided by JIMS.

RESEARCH & SEMINARS

We, at JIMS, take pride by creating value in the areas of our core-competence by organizing and participating in seminars research creates knowledge and seminars. Research creates knowledge and seminars help disseminating the same. Eminent speakers from corporate world and leading academicians share their thoughts, ideas and visions through our more than 20 seminars in a year. The synergy forum for knowledge sharing is by joining hands with leading management associations, networks and business houses.

STUDENT LIFE

JIMS supports the holistic development of a student. In a typical programme, students are exposed to different assessment tools, leadership development programmes, seminars, conferences and social welfare activities.

The aim is to develop and harness their various human skills. Students' active membership in corporate Resource Management cell exposes them to learn the complexities of industry dynamics.

GENERAL INFO

Type of School: Private (approved by AICTE)
*Private (approved by IP university)
Year of Establishment: 1993
* Year 1997

STUDENT BODY

Full-Time: 180 (90 per batch)
*Full Time: 60 (60 per batch)
Part-time: 90 (30 per batch)

ACADEMICS

Director: Prof. R.P.Maheswari
* Prof. A.K. Sengupta
Faculty Full time: 22
* 20
Faculty visiting: 18
*14
Computer Terminals: 120(all P/3 and P/4)
*90
Courses Offered: PGDBM (full time)
PGDBM
*MBA
*BBA
*BCA
(part time)
MCA
BBA
BCA
Admission Procedure: Written Entrance Exam -MAT
Group discussion
Personal Interview
*MBA
*CET-GGS IPU
*Group Discussion
Personal Interview

SUMMER PLACEMENTS

Total number of companies visiting the campus: 25

Top 10 companies

BPL
Cipla
Godrej
Gujarat Heavy Chemicals
HDFC
Hero
ICICI Lombard
Parle
Punj Lloyd
Reliance Infocom

FINAL PLACEMENTS

Total Number of companies visiting campus: 40

Top 10 companies
E-value Services
TCI
Luxor Writing Instruments
Nicholas Piramal Pharmaceuticals
Amul
Tata Infomedia
Dharampal Group
Baxter India Ltd.
Triton Communications
Escotel

Highest salary Offered: Rs 2.5 lakhs per annum
Average salary offered: Rs 1.5 Lakh per annum

FEES

Rs.85, 000 p.a.
* Rs. 35,000 p.a.

SCHOLARSHIPS

Scholarships are offered on merit cum means basis considering the past academic record of the student and annual family income.

Always expect the unexpected at JIMS. Breaking limits, surpassing expectations. Setting new rules. After all, innovative education is what makes JIMS a benchmark in quality education today.

10 YEARS
OF QUALITY
EDUCATION

COURSES OFFERED

PGDBM (Full / Part-Time)*

MBA (Full / Part-Time)**

MCA

BBA

BCA

BCAM

BJMC

jims

agan Institute of Management Studies
Institutional Area, Sector 5, Rohini, Delhi-110 085.
el. : 011-27042284, 27042296. Fax : 011-27054106.
E-mail : jims@vsnl.com
Website : www.jimsindia.org

Jagannath International Management School
MOR Pocket-105, Kalkaji (Opp. Nehru Place Bus Terminal),
New Delhi-110 019. Tel. : 011-26442957-59, 26232914.
Fax : 011-26220998. E-mail : jnims@vsnl.com
Website : www.jagannath.org

*nly at JIMS Rohini

**Only at JIMS Kalkaji

JIMS Rohini started in 1993

JIMS Kalkaji started in 1997

JIMS Vasant Kunj, New Delhi
starting from session 2003 onwards

***JIMS Jaipur** starting from session 2003 onwards. A fully residential 10 acre campus offering all courses*

JIMS has been ranked 31st in the country.
(Source : Business Today, The Best B-Schools, August 4, 2002)

[An ISO 9001 : 2000 Institution]

JAIPURIA INSTITUTE OF MANAGEMENT

Address: Vineet Khand, Gomtingar,
Lucknow-226 010.
Telephone: 0522-2302446,
2398096,2394296,2394297
Fax: 0522-2394295
Email: jimindia@jimindia.com

GENERAL INFO

Type of Institute: Private, promoted by industrialist Mr. Sharad Jaipuria and approved by AICTE

Year of Establishment: 1995

STUDENT BODY

Students enrolled currently in various courses: 290

PGDBA -120 (Full-time)/50(Part-time)

PGDIRM 60 (Full-Time), PGDMC 60 (Full-time)

ACADEMICS

Dean: Dr. S.R. Musanna
(Faculty Incharge-Admin.)
Dr. Renu Luthra (Faculty Incharge-Academics)
Principal: Mr. Sharad Jaipuria (President)
Placement Coordinator: Dr. Dheeraj Misra (Chairman--Placement)
In-house faculty: 19
Visiting faculty: 50

COURSES OFFERED

PGDBA - two-year full-time
PGDBA - Three-year part-time
PGDIRM Two-year full-time
PGDMC - Two-year full-time

ADMISSION PROCEDURE

Candidates are selected on the basis of their performance in the Common Admission Test conducted by IIMs.

Venues for entrance examination: Centres all over India

DATES & DEADLINES

Issue of Application Form: July 21, 2003
Last date for Submission of apoplication forms: December 1, 2003
Date for Written Examination: CAT Exam-Nov. 23, 2003
Date for Group Discussion: January/ February, 2004
Interview date: January/February, 2004
Date for commencement of course: July 1, 2004

FROM THE DIRECTOR

Jaipuria Institute of Management (JIM), Lucknow is one of the leading business schools in northern India. Over the years, it has produced high quality business professionals. Its faculty is drawn from a pool of academics and corporate leaders. They not only teach students, but also provide consultancy to various public and private sector business enterprises and train and retrain executives, besides researching.

INSIDE THE CLASSROOM

Students are put through a series of academic and extra-curricular activities, including seminars, presentations, role-plays, business games, business quizzes, case analyses, debates and extempore. To supplement classroom teaching, students are assigned various field surveys on a variety of contemporary topics to enable them develop into complete and competent managers. Students are also taken to various industries to gather first-hand experience.

SEMINARS & WORKSHOPS

International and national seminars/conferences are organised at regular intervals. Speakers of eminence in their areas make presentations and read their research papers. The institute has a very well laid-out emphasis on academia and industry interaction and organises various MDPs/EDPs and workshops for continuously upgrading the skills of executives. The institute also invites practising executives to interact with our students.

STUDENT LIFE

The alumni affirm their links with the Institute through the Alumni Association, which makes important contribution in summer training and final placement of the students.

The in-house publications of JIM include a Quarterly Newsletter and a bi-annual management journal called Management Dynamics.

The Institute's mission is to equip students with a wide range of managerial skillsso that they slip with effortless ease into the corporate set-ups of national and multinational organizations.

PLACEMENTS

Many leading companies from around the country visit the campus every year to recruit fresh graduates

Top 10 Recruiters

Last Year
GE Countrywide
HDFC Bank
ICICI Bank
Dr. Reddy's Laboratories
Ranbaxy
UPTEC
Times of India/Amar Ujala
JC Morrison
CIPLA
Panacea Biotech

This Year
ICICI Bank
ABN Ambro Bank
NIIT
ICICI Prudential Insurance Co. Ltd.
Bajaj Allianz Insurance
Coca Cola India
Eli Lily
B. Brawn
Novaritis
TISCO

Average salary offered
Last Year:Rs. 1.8 lakhs per annum
This Year: Rs. 2.5 lakhs per annum

Highest salary offered
Last Year:Rs. 3.6 lakhs per annum
This Year:Rs. 4 lakhs per annum

Lowest salary offered
Last year:Rs. 1.2 lakhs per annum
This year:Rs. 1.5 lakhs per annum

JAIPURIA INSTITUTE OF MANAGEMENT

(Approved by AICTE, Ministry of HRD, Govt. of India, to conduct 2 year full-time and 3 year part-time Post Graduate Diploma in Business Administration Programmes)

VINEET KHAND, GOMTINAGAR, LUCKNOW (U.P.)

A new-generation B-School where quality education is combined with top-class infrastructure.

HIGHLIGHTS OF THE INSTITUTE

I. PRIME LOCATION: Located in the upmarket Gomtinagar area of Lucknow surrounded by an extensive green belt..

II. STATE OF THE ART ACADEMIC INFRASTRUCTURE: Air-conditioned spacious fully computerised library, open seven days a week. Spacious classrooms, psychology lab, media lab, computer lab, MDP rooms and air-conditioned large conference hall.

III. QUALIFIED AND EXPERIENCED FACULTY: The Institute has 19 core faculty members, experts in their own fields of nation-wide renown. More than 50% of the faculty are already having Ph.D. in their respective fields. Besides academic expertise, faculty has rich industrial and academic experience.

IV. PLACEMENT: Excellent linkages with the industry. Renowned Corporates such as ICICI Bank, ABN-Amro Bank, NIIT, ICICI Prudential Insurance, Bajaj Allianz Insurance, Coca Cola India, Eli Lilly, B. Brawn, Novartis, Tisco, The Times of India, ETV, Sahara TV, Jain TV, The Pioneer, Dainik Jagran, UPTEC and Integral PR visit campus for placement.

V. HOSTEL FACILITIES: Separate Hostels for girls and boys fully equipped with mess, reading room, recreation room and is having round the clock security arrangement.

VI. SPORTS/RECREATION FACILITIES: Sports facilities includes swimming pool, Badminton Court, Lawn tennis court, playground for outdoor games and Gym. for girls.

THE COURSES:

POST GRADUATE DIPLOMA IN BUSINESS ADMINISTRATION

The two-year full time and three-year part time Post Graduate Diploma in Business Administration (PGDBA) with specialisation in Marketing, Finance, Human Resources, Production & Operations and I-T are being offered. Electives in Insurance & Media Management are also being offered from the academic session 2003-04.

POST GRADUATE DIPLOMA IN INSURANCE & RISK MANAGEMENT

One-year, full time Post Graduate Diploma in Insurance & Risk Management (PGDIRM). Approved by IRDA, Government of India. The course consists of two hundred and fifty teaching hours each in life and health insurance and general insurance subjects. The unique feature of the course are electives in risk management which include subjects like actuarial mathematics, stochastic modelling etc.

POST GRADUATE DIPLOMA IN MASS COMMUNICATION

The one-year, full time Post Graduate Diploma in Mass Communication (PGDMC), is an autonomous course having proved hugely popular in the first year itself of its launch. The course consists of six papers and includes Reporting, Writing, Editing, Script Writing, Anchoring, Presentation, Public Relation, Advertising and Internet Journalism. The course also includes practical exposure to media houses, TV channels, PR agencies and Advertising Agencies.

COMING UP: THE NOIDA CENTRE

In order to cater to the growing demand of students, the Institute is setting up a new Centre at Sector 62 in Noida, UP (adjacent to New Delhi). It shall become functional from the academic session 2004-2005.

32ND RANK AMONG TOP B-SCHOOLS OF INDIA

(Source: Cosmode B-School survey published at www.bizkool.com)

JANSONS SCHOOL OF BUSINESS

Address: Karumathampatti, Coimbatore 641659
Telephone: 0421-2336161 to 64
Fax: 0421-2334742

GENERAL INFO

Affiliated to Bharathiar University
Year of establishment: 2002

STUDENT BODY

Total number of students enrolled currently: 60

ACADEMICS

Director: Prof. S. Ganesan
Placement Coordinator:
Dr. S. Krishnakumar
In-house faculty: 8
Visiting lecturers: 12

COURSES OFFERED

Master of Business Administration (MBA). The annual intake of students is 60 at present.

ADMISSION PROCEDURE

Entrance examination is held on the MAT Pattern
Entrance examination venues: Chennai, Kochi, Coimbatore, Kolkata, Kottayam, New Delhi, Thiruvananthapuram, Vijayawada

DATES & DEADLINES

Issue of application form: First week of January
Last date for submission: Mid-March
Written examination date: Third week of March
Group Discussion and Interview date: First week of April
Commencement of course: First week of July

FEES

(a) Tuition Fees Rs.2 lakhs for the entire programme.
(b) Hostel Fees: Rs.26,000 per year for lodging.

SCHOLARSHIPS

(a)Name of the Scholarship: Jansons Endowment Scholarship

FROM THE DIRECTOR

Jansons School of Business is the result of the ambition of Jansons Foundation to provide the best business education. JSB has the advantage of strong industrial support. very essential for a business school. The Jansons Industrial Group is the foundation rock on which JSB is built. JSB combines the best of infrastructure and faculty. Right from the first year of its operation, JSB has got all the required facilities providing students an unmatched learning environment. A resourceful Library & Information Centre, a modern Computer Centre, Video Conferencing facility, Live Corporate Databases, Online and Offline Journals, air-conditioned smart-classrooms, a beautiful green environ, round-the-clock Internet browsing, most modern teaching aids, and above all highly qualified faculty are a few advantages of JSB. The campus is fully residential and has modern hostels for men and women learners, quarters for faculty and administrative staff. The Food Court is a crown in the residential block. JSB trains the students for the MBA programme of Bharathiar University. In addition to the MBA curriculum of the University, JSB designs a few other courses and delivers them to the students to keep the students fit for the highly demanding industry. The Advisory Council of the JSB, which is represented by industry, academics, and management consultants meets very often decides on the additional courses to be delivered to the students in each semester. This way the JSB ensures providing a value-added MBA programme to its students. Moreover the JSB has entered into tie-ups with leading industrial and educational organisations to offer relevant one-year PG Diploma Programmes on various functional aspects of management to the students during their second year of study. These PG Diploma Programmes are designed in such a way to empower the students with attitude, skill, and knowledge. I am sure that the JSB will live upto the expectations of all its stake-holders - the Jansons Foundation, Students, Parents, Industry, and the Society at large. I am also very confident that the vision of JSB to be in the forefront of management education worldwide will also be achieved in a short period of time.

(b) Financial Aid to Student: Rs.1 lakh for a student a year on the basis of certain performance parameters.

SUMMER PLACEMENTS

Top 10 recruiters

Air-India
Britannia Industries Limited
Citibank NA
Larsen & Toubro
ACC Limited
Pepsico India
Mudra Communications
3M Limited
Ashok Leyland
Sundaram Fasteners

Average stipend offered: Rs. 3500 per month
Highest stipend offered: Rs. 4000 per month
Lowest stipend offered: Rs 3000 per month

STUDENT LIFE

Jansons Management Association (JMA) is a students' forum affiliated with Madras Management Association and All India Management Association. JMA offers the students opportunities for managing various activities independently. It comprises separate clubs on Marketing, Finance, Operations, Human Resource Development and Information Technology. JMA actively participates in developing guidelines and annual calendar of students' events. Some of the activities of JMA are doing market surveys, financial analyses, and computerization of office operations for businesses. It also organizes periodical business quizzes, book review meetings, and inter-collegiate seminars. JSB has a fitness centre and courts and playgrounds for a wide range of sports. Well qualified Physical fitness instructors are available at the fitness centre. The JSB campus has other facilities like ATM, Shop, Bookstore and documentation centre. JSB's hostels have modern facilities and spacious rooms on twin sharing basis. Each room is fully furnished with independent bathrooms, beddings, work tables, cupboards, and telephone. Provision has been made in each room to accommodate use of personal computers by students.

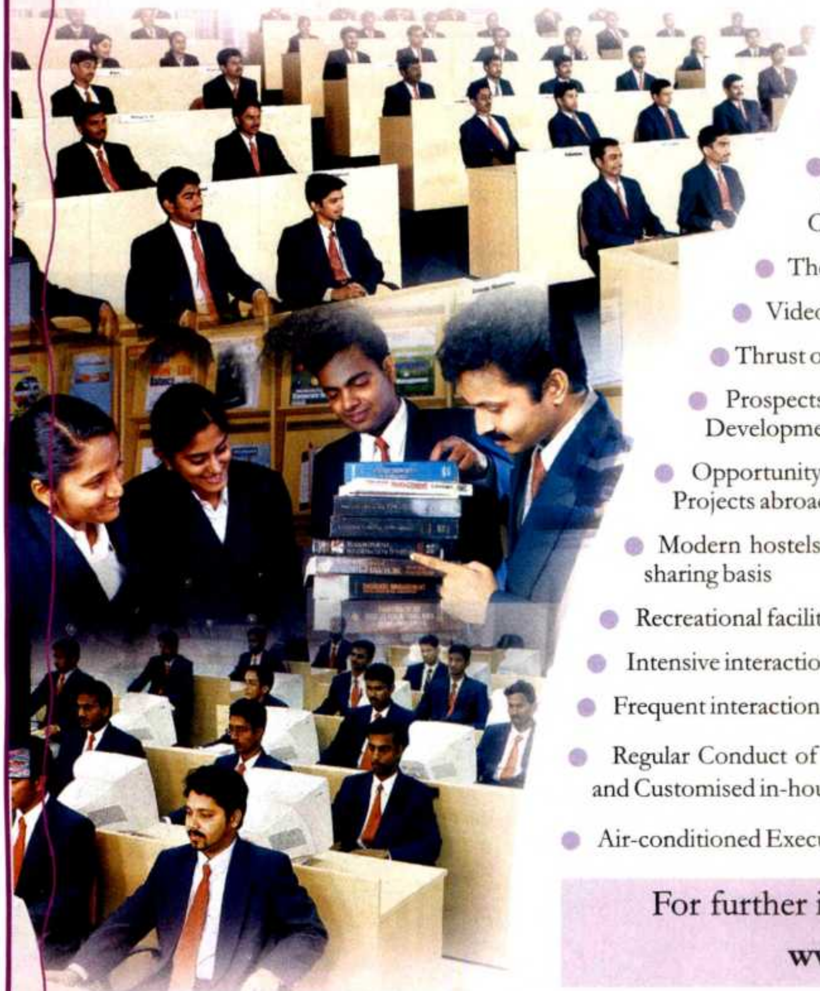
Jansons presents
World - class

MBA Programme

Fully Residential

Jansons
Infinite Learning

THE B SCHOOL



FEATURES THAT SET US APART:

- World Class infrastructure
- Centrally air-conditioned smart Classrooms, Library & Computer Centre
- The finest faculty
- Video conferencing facility
- Thrust on total personality development
- Prospects for planning career through Career Development Centre
- Opportunity for undertaking Summer Placement Projects abroad
- Modern hostels for men & women students on twin-sharing basis
- Recreational facilities
- Intensive interaction with industry ensuring placements
- Frequent interaction with business executives
- Regular Conduct of Executive Development Programmes and Customised in-house programmes
- Air-conditioned Executive Training Hostel

For further information log on to :
www.jsb.ac.in

JANSONS SCHOOL OF BUSINESS

Approved by AICTE & Affiliated to Bharathiyar University

KARUMATHAMPATTI,
COIMBATORE - 641 659.
Ph : 0421-2336161- 64
Fax : 0421-2334742.
E-mail : info@jsb.ac.in
Web: www.jsb.ac.in

K.K.E.C.S. INSTITUTE OF MANAGEMENT

Registered Office: 90/1, 90/2, 5th Cross,
Mahakavi Kuvempu Road, Near Malleswaram
Circle, Bangalore 560003
Campus: No.13, Sy No. 19, Ambalipura, Varthur
Hobli, Bellandur Gate, Sarjapur Road,
Bangalore 560037
Tel: 080) 8439397, 8441333,
56681848, 3445300
Fax: (080) 8439397
Email: kkecs@kkecs.org
Website: www.kkecs.org

GENERAL INFO

Type of School: Approved by AICTE, affiliated to Bangalore University
Year of Establishment: 1993

STUDENT BODY

Full-time graduates:
120 (BBM) + 120 (MBA)
Part-time graduates: 50 (MBA)
Total graduate population:
120 + 120 + 50 = 290

ACADEMICS

Dean: Dr. P. N. Reddy
Principal: Prof. Mathew Philip
Faculty full-time: 20
Faculty part-time: 50
Computer terminals for student use 120

COURSES OFFERED

BBM / MBA / MBA (Evening)

ADMISSION PROCEDURE

Written test / GD / Interview

DATES & DEADLINES

As per Bangalore University Schedules

SUMMER PLACEMENTS

Companies visiting the campus: 45

FINAL PLACEMENTS

Companies visiting the campus: 50

Highest Salary offered: Rs. 2.5 lakhs per annum.
Average Salary offered: Rs. 1.8 lakhs per annum

FROM THE DIRECTOR

Our goal is to reach our destination and the destination is holistic education. At our Institute of Management, we constantly strive to produce well-rounded professionals endowed with abundant self-confidence, versatile skills and unimpeachable ethical standards. The aim is to equip students with the values they need in order to meet the challenges and demands of the corporate sector.

INSIDE THE CLASSROOM

At our institute, education is not limited to the classroom alone. Inside the classroom, besides lectures, case study analyses and role-plays are included for maximum development. Outside the classroom, students are encouraged to conduct research, start new clubs and take up for community service on their own initiative for holistic growth.

RESEARCH &SEMINARS

Since its inception ten years ago, we have accorded top priority to attracting and maintaining the best faculty. Our faculty is continuously engaged in research especially at the Centre for Entrepreneurship and the Centre for Organization Building, which have been recently set up. We work with the best in the industry and conduct seminars and various research projects involving the students.

STUDENT LIFE

The student body at our institute is very diverse spanning the entire globe. The housing and recreational facilities offer the students a secure home environment. They are also given opportunities for cultural and intellectual development. A variety of clubs like - HR club, editorial club, recreational club -- and wide-ranging sports facilities attract highly dynamic students to our institute every year. The college offers an atmosphere of learning through an inexaustive collection of learning material. The institute has library memberships at IITNE British Council, IIM-B, IISC, IIE, BMA & CCL which enables live interaction of the students with the industry professionals and further their awareness emerging trends in their respective fields. The comfortable hostel facilities and variety of hobby clubs make the studentlife interesting and attractive.

FEES

Tuition fees: Rs.30,000 per semester
Hostel fees: Rs.24,000 per annum

SCHOLARSHIPS

Name of Scholarship:
K. K. Educational Trust Scholarship
Dr. P. N. Reddy Scholarship
Mrs. Saraswathi R. K. Scholarship

R.K. INSTITUTE OF MANAGEMENT

GENERAL INFO

Type of School: Approved by AICTE, affiated to Bangalore University,
Year of establishment: 2000

STUDENT BODY

Full Time Graduates: 120(BBM)+120(MBA)

ACADEMICS

Dean: Dr. Gayathri
Principal: Prof. Vasuki
Faculty Full Time:20
Faculty Part Time:50
Computers:100

COURSES

BBM/MBA

ADMISSION PROCEDURE

Written Test,GD,Interview

DATES & DEADLINES

As per B'lore Univ.Schedules

SUMMER PLACEMENTS

Companies Visiting The Campus 40

FINAL PLACEMENTS

Companies Visiting The Campus 50

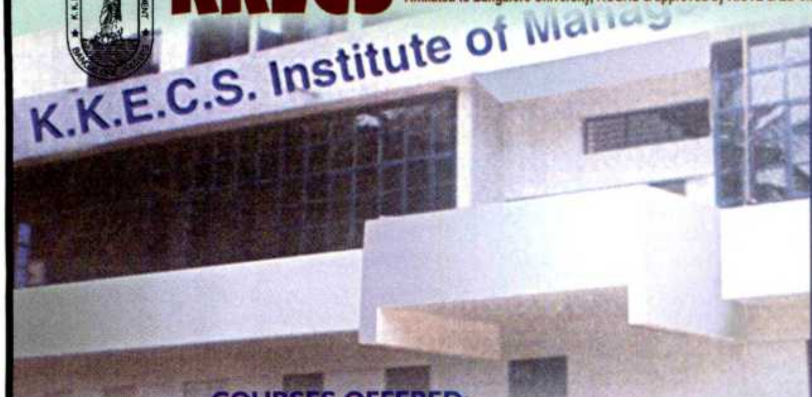
Highest Salary Rs. 2.5 Lakhs
Average Salary Rs. 2 lakhs

FEES

Tution Fees: Rs. 30000/- per semester
Hostel Fees: Rs. 24000/- per annum

KKECS Institute of Management

Affiliated to Bangalore University, RGUHS & approved by AICTE & Ed-Cil, New Delhi. Recd by Govt. of Karnataka,



The B-School with educational excellence

COURSES OFFERED:

- **MBA** (Master in Business Administration)
- **MCA** (Master in Computer Application)
- **MSc.** (Bio Technology)
- **MS** (Communications)*
- **BSc.** (Nursing)*
- **BBM** (Master in Business Management)
- **BCA** (Bachelor in Computer Application)
- **BSc.** (Bio Technology)
- **BSc.** (Computer Science)
- **BPT** (Bachelor in Physiotherapy)*

*Proposed

- The first Private institution to start MBA.
- State-of-the-art computer lab with internet facility.
- Research laboratory for life science courses.
- Separate Hostel for Boys & Girls.
- Well equiped library with more than 12,000 books & international, national journals & magazines to choose from.

100% PLACEMENT ASSISTANCE

AWARDED NATIONAL EDUCATIONAL EXCELLENCE AWARD

Cost of prospectus and application form: PG Courses Rs. 500/- By post Rs. 525/- (only DDs)
UG Courses Rs. 300/ By post Rs. 325/- (only DDs) DD favouring "KKECS Institute of Management" Payable at Bangalore

City off : # 90/1, 90/2, 5th Cross, Mahakavi Kuvempu Rd, Malleswaram, B'lore-560 003. Campus : Sy. No. 3/2, Ambalipura (Bellandur Gate) Varthur Hobli. Bangalore-560 037
☎ : 8439397, 8441333, 56681848, 3445300 Fax : 8439397 Mobile : 31849078 / 98450 53353 / 98451 54344 E-mail : kkecs@kkecs.org www.kkecs.org

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R.K institute of Management & Computer Science

Affiliated to Bangalore University, approved by AICTE & Ed-Cil, New Delhi. Recd by Govt. of Karnataka,

You will be Morphosed here

- Research laboratory with Hi-tech equipments
- State-of-the-art computer lab with internet facility.
- Separate Hostel for Boys & Girls.
- Well equiped library with national & international journals & magazines.
- Banking facility within the campus.
- 100% placements assistance by experts.
- Committed & cordial faculty.
- Finance arranged for eligible candidates.*

COURSES OFFERED:

- **MBA** (Master in Business Administration)
- **MCA** (Master in Computer Application)
- **MSc.** (Bio Technology)
- **MSc.** (Bio Chemistry)
- **MSc.** (Microbiology)
- **LLB.** (5 years)**
- **BBM** (Master in Business Management)
- **BCom.** (Computers)
- **BSc.** (Bio Technology)
- **BSc.** (Micro Biology)
- **BCA** (Bachelor in Computer Application)
- **BSc.** (Computer Science)

**Proposed

Cost of prospectus and application form: PG Courses Rs. 500/- By post Rs. 525/- (only DDs) UG Courses Rs. 300/ By post Rs. 325/- (only DDs) DD favouring "R.K Institute of Management & Computer Science" Payable at Bangalore

City off : 1062 7th A Main, 3rd Block, Koramangala, Bangalore-560 034 Campus : Sy. No. 19, No. 13. Ambalipura, (Bellandur Gate) Varthur Hobli. Bangalore-560 037
☎: 56681848, 8439397, 8441333, 3445300 Fax : 8439397 Mobile : 31849078 / 98450 53353 / 98451 54344 E-mail : rket@rket.org www.rket.org

*conditions apply

MATS UNIVERSITY

(Promoted by Jain Group of Institutions)
Bangalore Campus:
MATS Tower, 319, 17 Cross, 25 Main,
6 Phase, J P Nagar, Bangalore - 560078
Voice: (080) 653 2728
Fax: (080) 653 2730
Email: enquiry@mats.ac.in
Website: www.mats.ac.in
Raipur Campus:
MATS Tower, Pagaria Complex, Pandri,
Raipur - 402002 ,Chhattisgarh
Voice: (0771) 5076287
Fax: (0771) 5076990
Email: matsuniversity@vsnl.net
Website: www.mats.ac.in

GENERAL INFO

Type of School: Private University
Year of Establishment: 2001

STUDENT BODY

Full-time students: 180
Total Graduate
Population: 180

ACADEMICS

President: Sri R Chenraj Jain
Deans
1. Prof N V H Krishnan
2. Prof. Udayachandra
Faculty Full-time: 10
Adjunct faculty: 40
Computer terminals: 154

COURSES OFFERED

Undergraduates

Bachelor in Business Management, Commerce, Fashion Technology, Information Technology and Biotechnology.

Post Graduate

Master of Business Administration (MBA) International Business and Master of Business Administration (Specialization in Marketing, Finance, HR and Entrepreneurship)

SUMMER PLACEMENTS

Total number of companies visiting the campus every year: 37

FROM THE DIRECTOR

MATS has an enviable reputation for providing high quality, globally relevant and stimulating programmes. The programmes are engineered to provide the students with theoretical knowledge combined with the practical know how and understanding to allow them to succeed in any industry. The emphasis of the programme, as such, is on integration, implementation and internationalization to churn out business leaders who think creatively, operate cross-culturally and above all make things happen successfully.

RESEARCH & SEMINARS

At MATS, classroom teaching is enmeshed in a series of mini projects, seminars and white-paper presentations. This helps to integrate cross-disciplinary learning and gives practical exposure to the students. Apart from in-house activities, the students are also nominated on a regular basis to attend seminars conducted by renowned organizations in India and Abroad such as CII, NIPM, NHRD, IISc, BMA Nanyang Technological University, Singapore. The global exposure programme includes visits to Industries, Ports, Stock Exchanges and Trading Houses both in Malaysia and Singapore.

STUDENT LIFE

The unmatched and exciting voyage of a MATSONIAN encompasses the following academic and extra-curricular elements/activities in a span of just two years on the institute's campus:

- 42 Courses
- 2600 hours of learning
- 87 Seminars and Workshops
- 27 Industrial Visits
- 1500 hours of learning labs
- 30 to 60 Days of Global Internship
- 360 hours of Core Activities for leadership and Management
- 60 Hours of Yoga
- 365 hours of Current Events Analysis
- 10 Days of leadership Retreat
- 6 Days of Intercollegiate Events are organized by MATSONIANS every year

Top 10 companies

ING Vysya
ICICI Bank
Volvo
DDE ORG Solutions
L & T
H L L
Sasken
Mind tree Consulting
Coffee Day
Ranka Group

FINAL PLACEMENTS

Total number of companies visiting the campus: 41

Top 10 companies

Wipro Technologies
Netgallactic
Hewlett Packard
People-one Consulting
Karvy Consultants
Bhoruka Gases
Intellinet
Comity Trading Ltd
Allsec Financials
Monga Securities

Highest Salary offered: Rs. 2, 50, 000 per annum

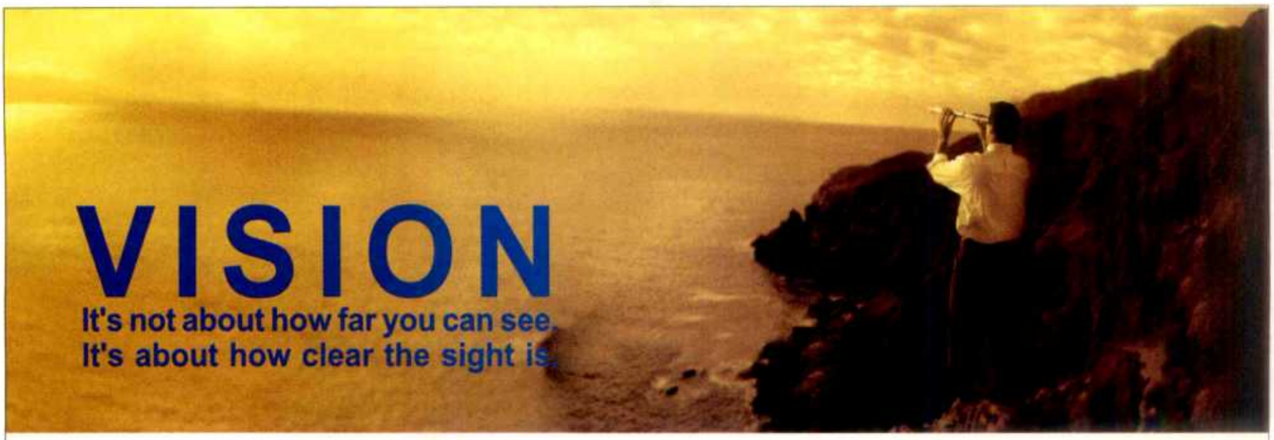
Average Salary offered: Rs. 1, 50, 000 per annum

FEES

Tuition fees: Rs. 3, 25, 000 (for two-years, including the institute's global opportunities programme)
Hostel fees: Rs. 3,500 per month.

SCHOLARSHIPS

Campus part-time jobs
Scholarships Sponsored for e-CITPM Programme.


VISION
It's not about how far you can see.
It's about how clear the sight is.

SHARPEN YOUR FUTURE WITH A VALUE EDUCATION AT MATS UNIVERSITY.

Let's face it. Success is not just about a good career. Happiness is not just about a 6-figure income. You attain peace of mind only when you are at harmony with yourself, with your life. You need determination and a true desire to live life every moment. And focus. At MATS University, it's not just education we provide. More than that, we imbibe values that stand you in good stead throughout your life. Values that help you achieve success; values that make you content.

MATS UNIVERSITY

(Promoted by Jain Group of Institutions)

MATS University, Bangalore Campus offers the following full-time programmes:

- **Bachelor in Business Management**
- **MBA International Business**
- **Masters in Information Technology**
- **MBA (Specialization in Marketing, Finance, Human Resource Development and Entrepreneurship)**

MATS University, Raipur Campus offers the following full-time programmes:

- **Bachelor in Business Management**
- **Bachelor of Commerce - Computer Science**
- **Bachelor of Science - Biotechnology**
- **Bachelor of Science - Fashion Technology**
- **Bachelor of Science - Information Technology**
- **MBA (Specialization in Marketing, Finance, Human Resource Development and Entrepreneurship)**

• Software Project Management Programme of National University of Singapore • Placement Assistance • Hostel Facilities • Centre for Entrepreneurial Development called 'Founvations' • Invigorating Curriculum • World Class Faculty • State-of-the-Art Pedagogy • Intensive Industry Involvement • Personal and Career Development • International Exposure • Industrial Visits • Guest Lectures • Meet the CEO Programme • Internships and Dissertations • Workshops, Seminars and Out-bound Activities • Video Conferencing facilities

For further details and information contact:

BANGALORE CAMPUS:

MATS Tower, 319, 17 Cross, 25 Main,
6 Phase, J P Nagar, Bangalore 560 078
Voice: 080-6532728 Fax: 080-6532730
Email: matsacademy@vsnl.net

RAIPUR CAMPUS:

MATS Tower, Pagariya Complex, Pandri,
Raipur 402 002, Chhattisgarh
Voice: 0771-5076287 Fax: 0771-5076990
Email: matsuniversity@vsnl.net

Visit us at: www.mats.ac.in

Sirius Comm. 412/03

MANAGEMENT DEVELOPMENT INSTITUTE

Sukhrali, Mehrauli Road
Gurgaon 122001
Admissions: 0124-2349831 to 37
E-mail:
Website: http://mdi.ac.in

GENERAL INFO

Year of Establishment: 1973

STUDENT BODY

Full Time Residential: 320.
Part Time: 150.

ACADEMICS

Director: Dr. Devi Singh
PGPM Chairman: Dr. Mukul Gupta
Full Time Faculty: 50
Visiting Faculty: 120
Computer Terminals for student use: Fully wired (hostels, classrooms, library, 22 hours access Computer Center; over 300 nodes) 2MBPS leased line net connectivity.
Library: Over 50,000 volumes, 300 journals, Databases & 2000 journal ABI/Inform, wired access).

POST GRADUATE COURSES OFFERED

MBA (PGPM) Full time 2 year compulsory residential. Through CAT. First batch - 1994-96.
Mid Career MBA (NMP: National Mgt. Prog.) Full Time 15 months residential; Min.5 years experience managerial level.(Started 1988). Through CAT.
Part Time MBA (PTPGPM) Three years non-residential. Min 3 years managerial exp.
Doctoral (Fellowship) program.
No undergraduate courses.

ADMISSION PROCEDURE

Through CAT, only on merit. Both CAT and MDI forms have to be submitted separately. Based on CAT results candidates will be called for interviews and GD.
Important dates
Issue of application forms: 15 July 2003 to 21 Nov 03
Submission of MDI application form: 21 November 2003
Cat Forms available from 14 July to 29 August 2003. Last Date for CAT application submission: 12 September 2003. CAT Test Date:23 November 2003.
GD/Interviews: Between 10 to 27 March 2004. across 4 centers in the country.

FROM THE DIRECTOR

We are witnessing a paradigm shift across global corporate cultures. Amidst the heightened competition and increasing uncertainty lies a silo of management thought that is fast losing relevance. The need of the hour is a new breed of leaders and business architects who have a global outlook, cross-functional expertise, and most importantly a positive attitude towards unlearning and relearning.
MDI is an autonomous Integrated Business School set up with support from IFCI, initially for training and research . It has received funding and other support from the DoPT(Govt.India), UN, European Union Commission, and corporates like L'Oreal, Hero Honda, Usha Intl. etc. It offers 3 MBA - Masters Programs, a Doctoral (Ph.D.)program, corporate training programs (over 3500 executives a year on average), research, and consulting. All of its post graduate programs in Management are accredited by the AICTE, and its MBA program is accorded A (top) grade. It was ranked fourth in India by the recent All India Management Association/Business India magazine survey of top B-schools in the country.

INSIDE THE CLASSROOM

The demanding academic curricula includes 33 credits and graded summer training, over 6 semesters. The globalization of perspectives is aided by international faculty offering courses, the International exchange program which allows for one- third of the students to spend a term or two abroad. The Students initiatives include the only student managed live mutual fund Unnati. Other initiatives like Samaritan, Illumina etc organise the marketing research event in the guise of a Diwali Fair, and community outreach programs. The placements have been 100 percent since the first batch (1994-96).

RESEARCH & SEMINARS

Three centres of research excellence:
Center for Excellence in Information Management (Funded by European Union Commission & MDI) India Europe Studies Center (Funded by European Union Commission & MDI) Supply Chain Management.(Funding and collaboration for research with AICTE, KPMG, etc.

SUMMER PLACEMENTS

Total Number of Companies visiting Campus: 57

Name of some companies visiting campus:-
Nestle, KPMG, Wipro Info, ICICI, Maruti, SAB Miller, Asian Paints, Wipro GE, LOreal, BMC, Aviva, Ranbaxy, Pidilite, Phillips, Bacardi, SBI Caps, SRF, Becton Dickinson, Mahindra Mahindra, RBI, ING Vysya Bank, PFC, Ashok Leyland, AL Finance, Eveready Agrotech Foods, Gillette. St.Gobain, LG, Novartis.

FINAL PLACEMENTS

Total Companies Visiting campus:
Over 130 firms confirmed Participation
Students accepted offers from 56 Companies on campus.

Highest Domestic salary offered: Rs.8.5 lacs
Average Domestic Salary Offered: Rs.5.9 lacs

Names of some recruiters-
Nestle, Marico, Reckit Benckiser, Asian Paints, BMC Maruti, HDFC, Whirlpool, Samsung, L&T, Growtalent, TCS, HCL Tech, ICICI Prudential, Hero Honda, IFFCO Tokio, Ranbaxy, Eicher, DHL, Dr.Reddy's Labs, PFC, CRISIL, ICI Paints.

FEES

Rs 4 lakhs over the total period of two years.
The fees are inclusive of tuition fees, hostel fees, mess food, course material, etc.

SCHOLARSHIPS

PGPM:
The Usha International Scholarship for the most meritorious student, with a cash award of Rs. 50,000

MDI
GURGAON

POST-GRADUATE PROGRAMMES IN MANAGEMENT

Beginning July 2004

MDI established in 1973 is today known to be a world class center for excellence in Management Education Research and Training. It has been consistently ranked among the top 10 B-schools in the country. MDI has its own well developed 37-acre campus on Delhi-Jaipur National Highway.

Post-Graduate Programme in Management (PGPM)

Is a two-year, full-time residential programme approved by AICTE, recognized as equivalent to an MBA degree by the Association of Indian Universities and Accredited by the National Board of Accreditation, AICTE as an `A' Grade Programme. On completion candidates are awarded the Post-Graduate Diploma in Business Management approved by AICTE. It has had 100% placements since inception.

ELIGIBILITY: A minimum of 3-year Bachelor's degree or equivalent in any discipline recognized by the Association of Indian Universities/AICTE as eligible for Post-Graduate Studies in Management. Candidates completing all requirements for obtaining the Bachelor's degree by June 2004 can also apply subject to furnishing evidence to that effect latest by 1st October 2004.

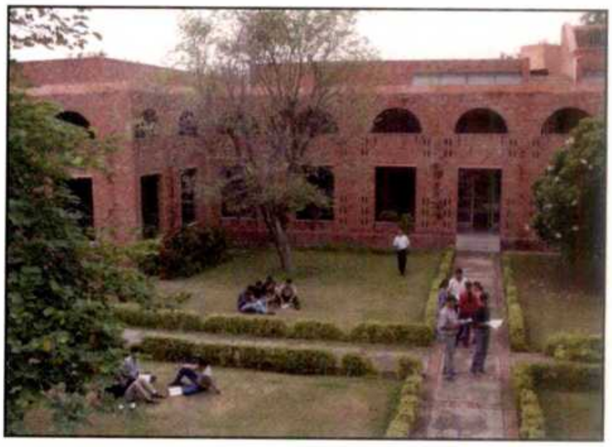
ADMISSION PROCEDURES

•All applicants seeking admission to the above programmes are required to appear for the **Common Admission Test (CAT) to be conducted by the IIMs on 23rd November, 2003.** The CAT Bulletin with application form can be purchased from select branches of State Bank of India (for details see CAT advertisement which shall appear in leading newspapers between 12-13 July 2003). •Applicants are also required to apply to MDI by filling a separate application form available from 14th July to 21st November 2003. •Foreign/NRI applicants can also apply by submitting valid GMAT scores (taken not earlier than January 2003). •Final selection will be based on the performance in the CAT/GMAT and subsequent group discussion and personal interview.

National Management Programme (NMP) Executive MBA

Is a 15-month, uniquely designed programme for executives. The curriculum for the programme comprises 12-months of residential component, followed by 3-months action learning through projects in business organizations. It leads to the award of the Post-Graduate Diploma in Business Management approved by AICTE.

ELIGIBILITY: A minimum of 3-year Bachelor's degree of equivalent in any discipline recognized by the Association of Indian Universities/AICTE as eligible for Post-Graduate Studies in Management Candidates completing all requirements for obtaining the Bachelor's degree by June 2004 can also apply subject to furnishing evidence to that effect latest by 1st October 2004.



INFORMATION BULLETIN AND APPLICATION FORM

Can be obtained from MDI's Counter in the reception lobby at IFCI Tower, 61, Nehru Place, New Delhi (Tel. No. 26438471, 26434674) or from MDI Campus, in Gurgaon from Monday-Friday between 10.00 a.m. to 3.30 p.m. The Information Bulletin and Application Forms are available on cash payment of Rs. 1000/-. Applicants wanting the Information Bulletin and Application Form by mail will have to send a crossed Demand Draft of Rs. 1,050/- ($100/- for Foreign /NRI applicants) in favour of **"Management Development Institute"** payable at New Delhi along with two self addressed (with Tel.No.) adhesive stickers **clearly superscribing on the envelope the choice of the programme PGPM or NMP**. For applying online, please log on to MDI's website once you have got the CAT details. Information Bulletin once sold will not be taken back. The last date for receiving completed filled-in application forms at MDI is 21st November, 2003.

MDI uses CAT for short listing candidates for its two-year full time Post-Graduate in Management and National Management Programme. IIMS have no role either in the selection process or in the conduct of the programme.

For further information please contact

The Deputy Administrative Office (Admissions)
MANAGEMENT DEVELOPMENT INSTITUTE
Mehrauli Road, Sukhrali, GURGAON - 122001 (Haryana)
Phone: 2349831-36, 2340153, 2340173, 5013050-62 (Touchtel lines)
Fax: (0124) 2341189, 2342244
Email: admissions@mdi.ac.in
Website: http://www.mdi.ac.in

MANAGEMENT EDUCATION & RESEARCH INSTITUTE

53-54 Institutional Area, Janakpuri,
New Delhi - 110058
Ph.: 011-25544391, 011-25542129
Fax: 011-25615006
Email: meribs@tesws.com
Website: www.tesws.com

GENERAL INFO

Approved by AICTE , Govt. of India and affiliated to GGS Indraprastha University, Delhi

Year of Establishment: 1995

STUDENT BODY

Full time graduates : 255
Undergraduates : 22
Total students : 277

ACADEMICS

Vice-President: Mr. Lalit Aggarwal
Director : Prof. Y. L. Grover
Faculty full-time: 15
Faculty part time: 20
Computer terminals for students' use : 60

COURSES OFFERED

a. Post Graduate Diploma in Business Management (PGDBM)
b. Masters in Computer Applications (MCA)
c. Bachelors in Computer Applications (BCA)

ADMISSION PROCEDURE

Admissions are through MAT conducted by AIMA-CMS, followed by GD and Interview at MERI.

Prospectus and Application form can be obtained from MERI's office on payment of Rs. 550/- (includes GD and Interview fee) in cash or by A/C payee Demand Draft, Payable at Delhi, drawn in favour of Management Education and Research Institute.

SUMMER PLACEMENTS

Total number of companies visiting the campus : 26

Top 10 companies

ATLAS COPCO (I) LTD.
ESCORTS LTD.
GODREJ LTD.
HCL INFOSYSTEMS LTD.
HERO CYCLES LTD.
HERO HONDA LTD.
INDIAN OIL CORPORATION LTD.
PEPSI FOOD LTD.
SAMSUNG LTD.
WIPRO

FINAL PLACEMENTS

Total number of companies visiting the campus : 14

Top 10 companies

ATLAS COPCO LTD.
BHARATI CELLULAR LTD.
CIPLA LTD.
INDIAMART INTERMESH LTD.
INFOCOM.COM
INFOSYS
LIBERTY SYSTEMS
PANACEA BIOTEC LTD.
SMITHKLINE BEECHAM PHARMACEUTICAL LTD.
WIPRO

Highest Salary Offered : 2.40 Lac p.a.
Average Salary Offered : 1.80 Lac p.a.

FEES

Tuition fees : Rs. 40,000
Hostel fees : Rs. 3250 per month

SCHOLARSHIP

A scholarship of Rs. 10,000 to each student securing 60% or more marks in MAT and admitted to MERI.

STUDENT LIFE

At MERI, every effort is made to establish linkages between theory and practice. Students are regularly sent for training in leading business organizations. The pedagogy for each course consists of Case Discussion and Presentation to develop soft-skills among students. Regular Conferences, Seminars and Workshops are organized entirely by students which enhances their organizing capabilities. Particular emphasis is laid on Personality Development and Presentation Skills.

FROM THE DIRECTOR

At MERI, we have a Mega Vision - " Building a Management and IT school par excellence". The liberalized dynamic business environment requires professionals of a very high order to manage business and industry. MERI is making all out efforts to contribute in the above direction. The emphasis is not only in turning out professionals but also in developing them as sincere and committed professionals.

INSIDE THE CLASSROOM

Spread over 50,000 sq. ft. MERI is located in the heart of Delhi. It is well connected from all parts of Delhi.

Class rooms are fully air conditioned and equipped with modern teaching aids such as Overhead Projector, television, VCR etc. Each room has provisions for Video Teleconferencing and is connected to the server through a LAN for on-line classes.

HOSTEL

The institute offers comfortable & well-furnished hostel * accommodation both for boys & girls separately. The institute also has a Library, Reading Room and Recreational facilities.

*** Air-conditioned rooms also available on demand.**

RESEARCH & SEMINAR

APRENDEMOS, an Annual IT Seminar, weekly in-house Seminars on IT and Management, participation by leading corporate houses and Business Schools, Managing Journey from B-School to Corporate World, Technology in Business Web, Together Everyone Achieves More, Business Oriented IT Services, ERP to CRM

Taking Management Education to the next level

Post-Graduate Diploma in Business Management

Approved by AICTE, Ministry of HRD, Govt. of India, since 1995.

Admission Notice for the Session - 2003-2005

INFRASTRUCTURE

Campus: The campus, spread over 50,000 sq. ft., **is ideally** located in the heart of Delhi.

Hostel: Well-furnished, the hostel provides separate accommodation for boys & girls, with a library & reading room.

ACADEMICS

Academic facilities include air-conditioned classrooms with audio/visual support, high-tech computer lab with internet facility, well-furnished library, conference hall, amphitheatre and gymnasium.

FACULTY

The Faculty consists of dedicated and highly-motivated people with great industry experience behind them. They are aided by a highly-qualified visiting faculty.

PLACEMENT

The institute offers excellent training and placement opportunities in Indian and multinational corporations like Infosys, Blue Dart, BPL, HCL Infosystems, Bisleri, Dabur India Ltd., HDFC Bank, BPL Ltd., CIPLA Ltd., Citi Bank, Indian Oil Corporation Ltd., Jet Airways, Larsan & Toubro Ltd., Maruti Udyog Ltd., Telco, Wipro, Xerox Modi Corp., etc.

MERI also assists students in getting study loans from banks.

- **Dedicated to providing well-structured industry related curriculum.**
- **Emphasis on overall personality development and communication skills as a part of the curriculum.**
- **Dual specialization in IT Marketing, Finance and HRM.**

MERI

(Approved by AICTE, Ministry of HRD, Govt. of India
& affiliated to GGS IP University Delhi)

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
53-54 Institutional Area (opp. D-Block) Janak Puri, New Delhi-110 058
Ph: 91-11-25542129, 25544391 Fax: 91-11-25544391 E-mail: meribs@tesws.com

Promodome/MERI/D

NARSEE MONJEE INSTITUTE OF MANAGEMENT STUDIES (DEEMED UNIVERSITY)

JVPD Scheme, Vile Parle (W),
Mumbai 400056
Telephone: 26134577 / 26143177
Email: nmims@nmims.edu
website: www.nmims.edu

GENERAL INFO

Type of school: Recognised
Year of Establishment: 1981

STUDENT BODY

Full-time graduates: 240
Part-time graduates: 360
Total graduate population: 600

ACADEMICS

Vice Chancellor: Dr. H H Mankad
Pro-Vice Chancellor: Dr. N M Kondap
Faculty Full-time: 38
Adjunct Faculty: 5
Computer terminals for student use: 133

COURSES OFFERED

Master of Business Administration (MBA) -- two-year full-time and three-year part-time

ADMISSION PROCEDURE

Selection is done on the basis of Written test (paper-pencil/online), Group Discussion and Personal Interview.

DATES & DEADLINES

Last date for issue of Application Form: 30 November
Last date for submission of Application Form: 10 December
Written Examination Date: Third Sunday of January
Group Discussion Date: Second week of March
Interview Date: Second week of March every year

SUMMER PLACEMENTS

Total number of companies visiting the campus: 100-plus

Top Ten companies:

ABN Amro Bank
Eli Lilly
Britannia Industries
Bharat Petroleum Ltd
GE SBI
GE Countrywide
General Mills India Pvt. Ltd
Godrej & Boyce
Tata Administrative Services
IL&FS

FROM THE VICE CHANCELLOR

At NMIMS, we are constantly improving the quality of input we provide. The task of preparing a highly motivated group of 240 full-time MBA aspirants, selected through a rigorous and transparent process, for challenging managerial responsibility gets top priority. Establishing meaningful links with corporates and sharing NMIMS' intellectual resources through print and electronic media with a larger constituency are also important.

INSIDE THE CLASSROOM

The programmes are trimester based and follow a judicious mix of class lectures, case studies and project assignments. Frequent interactions with corporates in the form of guest lectures, case study-based projects, seminars etc are some of the important aspects of the programmes. Special emphasis is placed on interactive learning.

RESEARCH & SEMINARS

The institute as well as faculty regularly conduct research and publish and present research papers in National and International Conferences. During the year 2002-2003 about 28 papers were published in journals, newspapers and presented in national and International conferences. Case Monographs, Research monographs and discussion papers are also released regularly.

STUDENT LIFE

Life in any B-school is an endless series of presentations, lectures and academic rigour. However, at NMIMS it is not just about academic pressures and placements. We believe that academia alone does not make a great manager.

A typical NMite would be a highly focused individual but he is also a person who has a penchant for partying whenever he can. Festivals like Euphoria and Parampara, which are held annually on the campus, provide ample proof of that.

FINAL PLACEMENTS

Total Number of companies visiting the campus: 150-plus

Top 10 companies

Maersk Sealand
Tata Adminstrative Services
Britannia
Mckinsey Knowledge Centre
Perfetti
Asian Paints
HDFC Group
Kotak Mahindra Group
GE India
A V Birla

Highest salary offered: Rs. 7.3 lakhs per annum
Average Salary offered: Rs 4.9 lakhs per annum

FEES

Tuition fees (MBA full-time): Rs 80,000
Tuition fees (MBA Part-time): Rs 10,000
Hostel Fees: Rs 30,000

AWARDS AND SCHOLARSHIPS

The University grants scholarships for the meritorious students. The institute also gives away certificates of honour/ awards /scholarships, including the prestigious the GE scholarship, the Tata Scholarship, the Dun & Bradstreet Scholarship, the Tulsi Ram Harish Gupta Gold Medal, the Y K Zamvar Award and the Themis Award, amongst others.
Last year approximately Rs 5 lakhs worth of scholarships and awards were disbursed to the students.
All information relates to our MBA degree programmes only. Please visit our website www.nmims.edu or contact at campus for details of a wide range of other academic options.

NMIMS
Deemed University

Step into NMIMS.
Step away from the crowd.

SVKM

Shri Vile Parle Kelavani Mandal's
NARSEE MONJEE INSTITUTE OF MANAGEMENT STUDIES
(DEEMED UNIVERSITY)
V.L. Mehta Road, Vile Parle (W), Mumbai - 400 056. • Tel.: 26134577/26183688 • Fax: 26114512
• E-mail: nmims@nmims.edu • Visit us at: www.nmims.edu

NMIMS
transcending horizons

Multimedia Aquarius/NMIMS/23/03

NIILM CENTRE FOR MANAGEMENT STUDIES

B-II/ 66, Mohan Cooperative Industrial Estate,
Mathura Road, New Delhi. Pin: 110 044.
E-Mail: info@niilm.com.
Website: www.niilm.com

GENERAL INFO

Type of school: Private, AICTE recognized
Year of Establishment: 1996

ACADEMICS

Director: Prof. S Neelamegham
Full Time Faculty members: 21
Part-time Faculty members: 6
Distinguished Professors: 14
Soft Skills Trainers: 04
Computer Terminals for Student Use: 112

COURSES OFFERED

AICTE approved Full-time PGDBM (admission through CAT)
Executive MBA Programme, Visva-Bharati associated
BBA (Hons.) Degree Programme associated with Visva-Bharati university
Health Services Management diploma programme
Health Information Systems Management diploma programme
Short-term on-site and off-site executive development programmes

ADMISSION PROCEDURE

For PGDBM-CAT score, GD and Interview,
For executive MBA, preliminary screening is done through a written test
For all undergraduate programmes, admissions are based on written test scores (UGAT, VB-JAT, NAT), Group Discussion and interview scores and past academic record

DATES & DEADLINES

Full-time PGDBM

Last date of issue and submission of Application Forms: November 30 every year
CAT Examination Date: To be announced through newspaper notifications
Group Discussion and Interview Dates: Between January second Week - February

FROM THE DIRECTOR

NIILM Center's mission is simple. On the one hand, to groom young managerial talents and enable them lead and achieve with élan in a volatile future. On the other, to focus on action oriented research and offer programs for working executives to improve their skills, acquire new management tools and successfully implement strategies that will help organizations achieve success in the rapidly changing competitive landscape.

Driven by this mission, the entire facilities-systems-people body fabric of NIILM is woven around the philosophy of continuous innovation and a readiness to change. The challenge facing NIILM CMS is to step beyond its current position and become a major influence on the minds of managers and academics not only in India but also across the borders.

BEYOND THE CLASSROOM

NIILM Classrooms are more like learning workshops highlighted by group-based learning, faculty-moderated discussions and real-time learning assessment as much as possible. Field visits, face-to-face interaction with top executives, company projects and case studies based on real executive experience facilitate interactive and experiential learning and development of soft managerial skills. Major classroom learning tools include short lecture-monologues, case-discussions, theme-debates, simulation exercises and skill-building drills. Excellent physical facilities, optimal teacher-student ratio and competent faculty advisors ably support NIILN Center's innovative pedagogy.

RESEARCH & SEMINARS

A dedicated Faculty Research Unit accords formal attention to the task of managing knowledge generation processes within the institution. The Center has its own prestigious Journal of Marketing and Communication and the faculty is engaged in research in areas like accelerated brand development, consumer heterogeneity studies, currency forecasting models, dynamic and optimal distribution of microcredits, retailer influence studies in the consumer products category etc. The FRU also coordinates a case-writing workshop.

Executive MBA Program

Last date of issue and submissions of Application Forms: June 15 every year
Written Examination Date: To be announced through newspaper notifications
Group Discussion and Interview Dates: June third week

Undergraduate Programs

Last date of issue and submissions of Application Forms: May 15 every year
Examination Dates: To be announced through newspaper notifications
Group Discussion and Interview Dates: May Third Week

SUMMER TRAINING

Companies Visiting the campus: 58
Top Ten Companies: Coca Cola, HDFC Bank, CNBC, Reliance India, Apollo Tyres, Jet Airways, ICICI Bank, ITC, Bank Of America, HCL Systems

FINAL PLACEMENTS

Companies Visiting the campus: 58
Top Ten Companies: Nestle, Bharti Cellular, Punj Lyod, ABN Amro, TNT Logistics, Ranbaxy Laboratories, Aviva, CNBC, Apollo Tyres, Reliance Infocomm

Highest Salary (Rs. 5.50 Lacs per annum)
Average Salary (Rs. 3.25 Lacs per annum)

FEES

AICTE approved Full-time PGDBM (admission through CAT): Rs. 2. 88 lakhs
Executive MBA Program, Visva-Bharati associated:Rs. 88,000/-
BBA (Hons.) Degree Program associated with Visva-Bharati university: Rs. 2.1 lakhs
BBA (Finance and Insurance Management): Rs. 1.8 lakhs
Health Services Management diploma program: Rs. 18,000/-
Health Information Systems Management diploma program: Rs. 18,000/-

SCHOLARSHIPS

Scholarships are available for meritorious students.
Financial aid available: full and partial tuition fee waiver in the undergraduate programmes.
Banks Loans are arranged.

SHAPING LEADERSHIP THROUGH VALUES AND VISION

MBAPower...

Will the employers be satisfied with a mere MBA qualification?
No. we at NIILM CMS go beyond and make sure that you are adequately prepared not just for a great career but for life and all that it has to offer

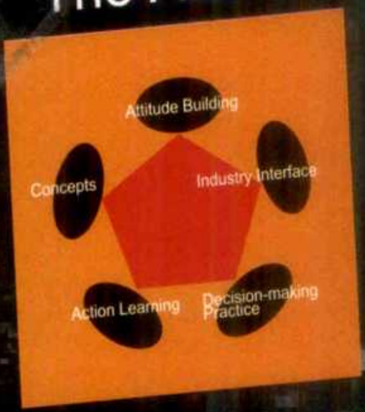
FULL-TIME PGDBM

CAT 2003

ELIGIBILITY

Individuals having a three-year Bachelor's degree (or any qualification recognized by the AIU as equivalent)with minimum of 45% marks can apply for the program. Applicants are required to take CAT - 2003 and admissions are based on applicants' composite scores in CAT, graduation degree, group discussion and interviews.

The AIDAC



APPLYING for the Program...

Individuals with a good graduate degree and three or more years of executive experience are eligible to apply. Applications packs can be bought @ Rs 500/- cash or can be ordered by mail through a demand draft of Rs 550/- drawn in favor of "NIILM" and payable in New Delhi. The last date for application submission is June 30' 2003.

SELECT POST EXPERIENCE PROGRAMS

Healthcare Services Management
Health information Technology
Customer Relationships Management
Logistics & Supply Chain Management
Foreign Exchange Management
Global Business Management
Advertising and Brand Management

Executive MBA Program!

Born in 1996, NIILM Center for Management Studies is now ranked among India's top twenty business schools and considered among the best five to have evolved in the last one decade. The Center is research and rigor-driven and offers innovative management training, consulting and executive development solutions to a cross-section of business and non-business organizations.

NIILM Centre for Management Studies
Shaping Leadership Through Values & Vision

AICTE approved PGDBM program (through CAT); Executive MBA Program; Management Consulting; Executive Development and Training

NIILM CENTER FOR MANAGEMENT STUDIES

NITIE (NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING)

VIHAR LAKEMumbai-400087
Email: ashokpundir@faculty.nitie.edu
Website: www.nitie.edu

GENERAL INFO

Type of School Established by the Government of India with assistance of United National Development Project (UNDP) through the International Labour Organization (ILO), NITIE is an autonomous body under the Ministry of HRD, Government of India

Year of Establishment: 1963

ACADEMICS

Name of Director: Prof Tapan P Bagchi
Full Time Faculty: 45
Part Time Faculty: 1
Computer Terminals: 356
Computer Terminals for Student Use: 276

COURSES OFFERED

PG Diploma in Industrial Management
PG Diploma in Industrial Engineering
PG Diploma in Industrial Safety
& Environmental Engineering
Fellowship Program in Management

ADMISSIONS PROCEDURE

NITIE conducts its own admission examination every year with centers all across the country. Those short-listed are called for GD/PI in the NITIE campus for final selection. Only first class graduate engineers are eligible to apply.

DATES & DEADLINES

Last date for issue of Application Form: December endLast date for submission of Application Form: Mid January
Written Examination Date: January end
Group Discussion Date: March

SUMMER PLACEMENTS

Total Number of companies visiting the campus: 61

FROM THE DIRECTOR

NITIE attracts the best minds in the country as is indicated by the high rankings that have been accorded to the PGDIM course since its inception. We believe that a manager must be proficient in all the aspects of a business. Accordingly the students are imparted a rigorous cross-functional business education. Students interact extensively with the Industry as a result of which they obtain a first person insight into the prevailing business environment.

INSIDE THE CLASSROOM

In NITIE, each module is 3 months long and there are 6 such modules in two years. Apart from these 6 modules, we have a Summer Project of 8 weeks and an Industrial Project of 16 weeks. There are seven subjects in each module, which has a Techno-Managerial mix. The project provides a flavour of hands on experience in various industries, which the students undertake all over India and some abroad as well. The sessions of 100 minutes each are very academically oriented and highly interactive. It's an experience of a lifetime, which the students and faculty savour forever.

RESEARCH & SEMINARS

The faculty at NITIE carries out extensive research work. Their papers and articles have appeared in national and international journals. Seminars like Disha and Insertech are held every quarter at NITIE. They provide a platform to practicing professionals to present the latest breakthroughs in the Industry. Prerana is a sui-generis annual business event organized by the PGDIM students of NITIE, which has of late assumed gargantuan proportions.

STUDENT LIFE

Unlike in other institutes, student life at NITIE does not mean a frantic race to keep up only with academics. The emphasis is on all-round development. After classes, the intellectually inclined can avail of the services of our peerless library or join in the spirited discussions in any of the various forums. Others can make use of the excellent sports infrastructure. Besides these, the sylvan campus allows the students to unwind in the lap of nature amidst trees, lawns and lakes.

Name of Top 10 Companies:

HLL
Nestle
Britannia
HSBC
Citibank
SAP Labs
ICICI Bank
Oracle
Wipro
Lafarge

FINAL PLACEMENTS

Total Number of Companies visiting the Campus: 78 companies enrolled for recruitment, while 47 actually got the opportunity to recruit.

Name of Top 10 Companies:

TRINITI
DIGITAL
GE group
Citibank
INTEL
SAP LAB
Oracle
Nestle
Asian Paints
Colgate Palmolive

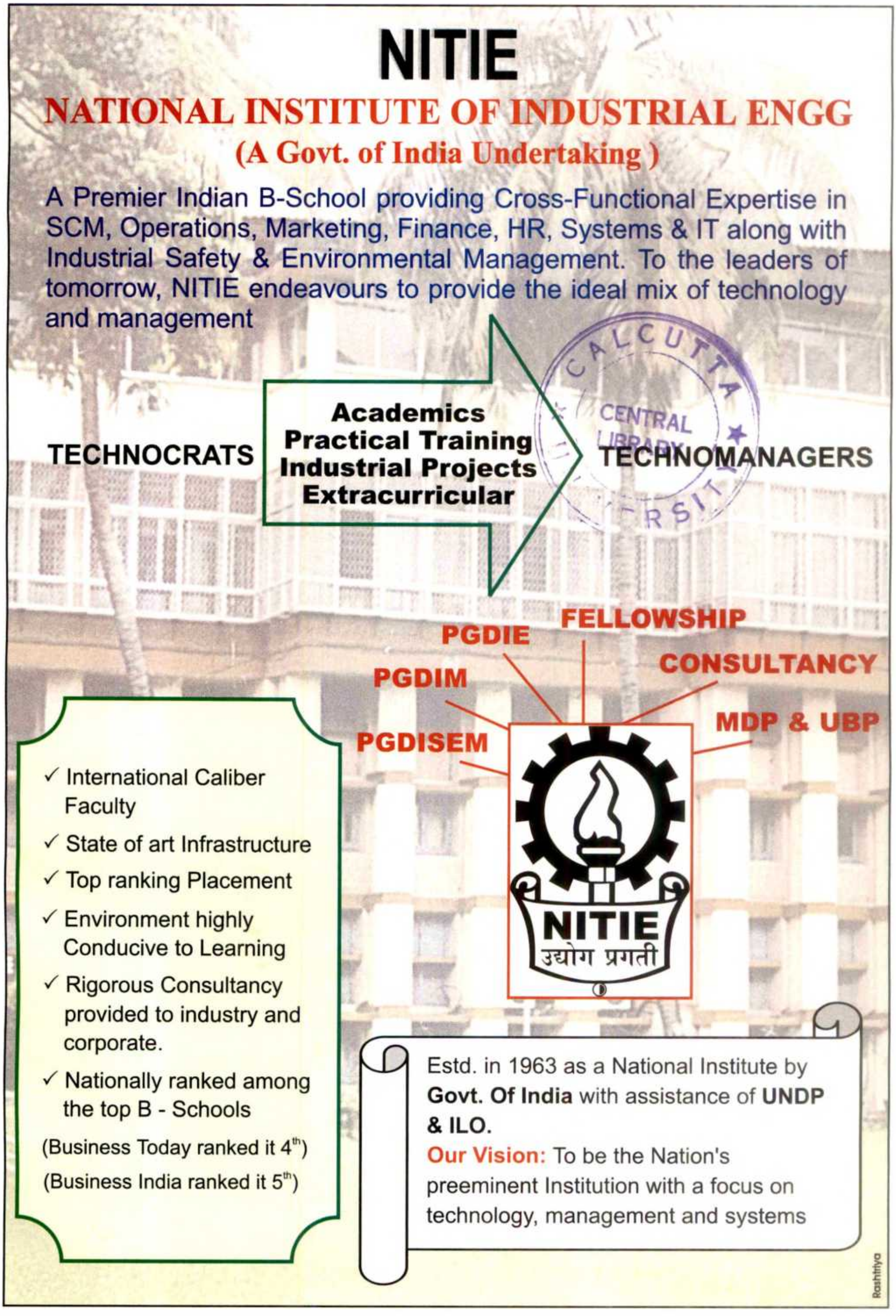
Highest Salary Paid: Rs 14 lakhs
Average Salary Offered: Rs 6.76 lakhs

FEES

Tuition Fees: Rs 80,000 per annum
Hostel Fees: Rs 15,000 per annum

SCHOLARSHIPS

Corporate Sponsorship



NITIE

NATIONAL INSTITUTE OF INDUSTRIAL ENGG

(A Govt. of India Undertaking)

A Premier Indian B-School providing Cross-Functional Expertise in SCM, Operations, Marketing, Finance, HR, Systems & IT along with Industrial Safety & Environmental Management. To the leaders of tomorrow, NITIE endeavours to provide the ideal mix of technology and management

CALCUTTA
CENTRAL
LIBRARY
UNIVERSITY

TECHNOCRATS

Academics
Practical Training
Industrial Projects
Extracurricular

TECHNOMANAGERS

FELLOWSHIP
PGDIE
CONSULTANCY
PGDIM
MDP & UBP
PGDISEM

- ✓ International Caliber Faculty
- ✓ State of art Infrastructure
- ✓ Top ranking Placement
- ✓ Environment highly Conducive to Learning
- ✓ Rigorous Consultancy provided to industry and corporate.
- ✓ Nationally ranked among the top B - Schools

(Business Today ranked it 4th)
(Business India ranked it 5th)

Estd. in 1963 as a National Institute by **Govt. Of India** with assistance of **UNDP & ILO.**

Our Vision: To be the Nation's preeminent Institution with a focus on technology, management and systems

Rashtriya

1

INDIA'S
NO.1
BUSINESS
MAGAZINE

business today

No.1 in readership (NRS 2002).
No.1 in circulation (ABC JD 2002).

No fine print. No hidden facts. No surprises.

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REACH GREATER HEIGHTS

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PRESIDENCY COLLEGE

(Approved by AICTE, New Delhi & Affiliated to Bangalore University)
33/ 2C & 33/2D, Kempapura, Hebbal, Bangalore - 560 024
Ph: 080-3636173 / 175 Fax : 3636174 Mobile : 56717175
Email : presirt@yahoo.com

Announces Admission For 2003-2004

MBA

Master of Business Administration

MISSION

- Knowledge dissemination through pragmatic approaches, culminating in the efforts towards reaching greater heights.

SALIENT FEATURES

- New campus with excellent infrastructure, faculty with aspirations to impart, guest lectures from the Industry, extra courses and inputs to match the expectations of the industry, strict academic rigor, well equipped computer lab, one study tour / out bound trip every semester, updated library, audio-visual presentations, focussed placement targets, orientation towards research studies and corporate projects, separate hostel for male and female LEARNING executives.
- Electives : Marketing, Finance, HR, Information systems.

ELIGIBILITY

- Graduate in any discipline with minimum aggregate of 50%; final year students awaiting results may also apply ; selection through written tests and group discussions only ; behavioral and attitude screening by professional teams.

HOW TO APPLY

- Prospects and application form can be obtained on payment of Rs. 250/- in cash or by DD drawn in favour of **'Presidency College, Bangalore'** to the above address.

Dr. Radha Padmanabhan
Principal

RAI UNIVERSITY

A-41, MCIE, Mathura Road, New Delhi-110044
Te: 011- 26959200/ 9300, 5156 0000, 5157 0000, 5158 0000
Email: delhi@raiuniversity.edu
delhi@raifoundation.org
Website : www.raiuniversity.edu
Admission Bureau: 09811298620
Email : counselling@raifoundation.org
Career guidance: 09811298644, 09811298646
Counselling Toll Free: 1600112222

ACADEMICS

The University has 21 colleges offering 309 courses. Some of our courses are tailor-made according to the student's requirements. The 18 campuses spread across India offer Rai scholars a unique opportunity to avail state-of-the-art resources for career advancement. The Universtiy combines the intelletual intensity of a world class University with the commitment to provide its students the best in education. This is supported by experienced faculty, advanced labratories and computing facilities and research libraries.

309 Courses & combinations offered at RU Colleges :

- Rai Business School
- Rai Media Lab
- College of Media & Communication
- School of Arts & Management Sciences
- School of Economics & Management Sciences
- College of Commerce & Services Management
- School of Engineering & Applied Sciences
- College of Computing & Applied Software Engg.
- School of Performing Arts & Creative Education
- Institute of Film & Television
- Institute of Design Engineering & Architecture
- School of Fashion Technology
- College of Hospitality & Tourism
- College of Insurance & Risk Management Studies
- College of Liberal Arts & Social Sciences
- College of Healthcare and Pharmacology
- School of Ancient Vedic Arts & Sciences
- College of Law & Public Policy
- Rai International Junior College
- NIILM - Centre for Management Studies
- EIILM - Centre for Management Excellence

FROM THE DEAN

College days are the formative years in any student's life. The experiences and learning you carry from here shapes your career. With this in mind, we have the best to offer you in the form of faculty, infrastructure, state-of the facilities at all the twenty-one RU centers. Our commitment to provide global quality education remains embedded in our core values. Every experience at the campus prepares you for the challenges in life and work. It's our mission to become the most innovative and entrepreneurial university.

Vice Chancellor Dr. K.C. Agrawal

ABOUT RAI FOUNDATION

Rai Foundation is a philanthropic non-profit body with a missionary zeal to support human endeavour in any and every sphere of life through education, care and concern. Rai Foundation's pursuit of world-class education that began two decades ago has come a full circle with the present mission and objectives of Rai University.

The Foundation believes that a country can develop meaningfully only if the quality of life of its people improves - through education, social equity, freedom and responsibility. The Foundation's activities are directed to challenge the current path of development, and help in the search of alternatives for the betterment of society.

RESEARCH & SEMINARS

The University has resources to foster creativity and research. Experts from various fields are regularly invited to share their experiences with students. We encourage students to cut across traditional subject boundaries to come up with new ideas. This is to benefit the society as a whole through discovery, leadership and responsibility. It is our effort to create skills and innovation for the ever-changing job market.

STUDENT LIFE

Life at the University campus is influenced by learning, a sense of belongingness, alumni relations, and the ability to achieve our purpose-to evolve minds that think and to transform lives for the benefit of society. Every student has access to interact closely with faculty.

SUMMER PLACEMENTS

Some of the reputed companies with whom the students have been placed for summer training are BHEL, Escorts, Eicher motors Whirlpool, Dabur, Eicher Tractors, Bank of Punjab, Goetze, Aaj Tak, Cinevista, Statesman, Sahara, Akshara advertising, Star Plus, Radio Mirchi, Rashtriya Advertising, Mudra, Triton communications etc.

PLACEMENTS

The companies that have recruited our students are Cholamandalam General Insurance Company, Zee News, B.A.G. Films, Siticablie, Miditech, Punjab Today, NCNL Productions, Dainik Jagran, Rediff Advertising

Highest salary offered

The highest salary offered to a student so far has been Rs. 2,15,000 plus per annum

Average salary offered

The average salary offered to students is about Rs 1,20,000 per annum

SCHOLARSHIPS

It is a fundamental belief at Rai University that those who have commitment and keenness to pursue higher education will not be denied opportunity to do so irrespective of their ability to pay.

Scholarships are offered based on merit and needs. Students receive 75% to 100% scholarship for their recognized merit. This is a part of the overall strategy at the university to attract and retain talent.

DATES AND DEADLINES

Registration forms available
The cut off list will be announced as follows:
First list: July 2
Second List: July 10
Third list: July 18
Academic session commences July 21, 2003

Admissions Open

Rai University

All Centres

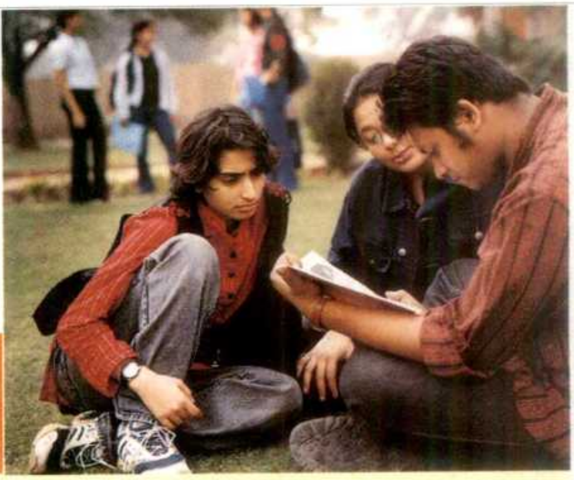
Founded by

Rai Foundation

CREATIVE • CARING • COMMITTED

We invite applications for the Academic Year 2003-04

in the following Bachelors & Masters Degrees



English, Philosophy, Psychology, Economics, History, Pol. Science, Sociology, Mathematics, Satistics, Physics, Chemistry, Biochemistry, Biotechnology, Genetics, Immunology, Bioinformatics, Microbiology, Library Sciences, Commerce, Mechanical Engg, Electronics & Communication Engg, Telecommunications, Computing, Information Technology, Computer Science & Engg, Software Engg, Computational Mgt, Internet & Mobile Computing, Parallel & Distributed Computing, Management, Media, Mass Communication, Journalism, News Production, Advertising, Marketing, Public Relations, Brand Mgt., Media Arts, Corporate Communication, Film & TV Production, Theatre, Graphics & Animation, Photography, Videography and Editing, Artitecture, Interior & Product Design, Interior Design, Fashion, Textile Design, CAD, Fine Arts, Dance, Music, Logistics & Material Mgt., International Business, Finance & Accounting, Strategic & Quality Mgt., Operations Research, Banking, Hospitality, Tourism, Food & Beverage Services, Food Production, Front Office Mgt., Air Hostess & Flight Attendants, Patent law, Cyber Law, Labour Law, Life Insurance, General Insurance & Risk Mgt., Physiotherapy, Nutrition & Dietetics, Hospital Management.

Come claim your SEAT & SCHOLARSHIP @ Rai University

Calling all 12th Pass Students

12th Std. %	Min. Assured Scholarship
More than 90%	100%
80-89.9%	75%
75-79.9%	50%
70-74.9%	40%
65-69.9%	30%
60-64.9%	25%

- **Students having scored less than 60% can still claim scholarship by appearing for the RU-SAT**
- **Students having appeared in the RF-SAT earlier may contact their centre of choice for re-consideration of scholarship**

Calling all CAT/MAT Candidates

Comp. percentile	Min. Assured Scholarship
More than 90%	100%
80-89.9%	50%
70-79.9%	25%

- **Students having scored less than 70% can still claim scholarship by appearing for the RU-GMAT**
- **Students having taken the MAT(conducted by AIMA) held in Feb. & May are eligible for admission into July session**
- **Cat/ Mat scores are accepted for admission into MBA-Marketing/ Accounting & Finance/ Banking & Finance/ HR/ International Business/ IT, MBA- Insurance, MBA-Hospitality and Master of Mass Communication**

Scholarship / admission valid upto 15th July 2003

- **Hi-end professional specialised degree courses are available for a fee of Rs. 60,000 to 90,000 per annum (Scholarship applicable).**
- **Standard courses like BA, BCom etc are offered for a fee of Rs. 28,000 to 38,000 per annum (No Scholarship applicable).**

Study Abroad

Most courses at Rai University allow you to spend your final degree year abroad through a unique credit transfer scheme, which allows you to complete an international degree in more than sixty five universities in UK, USA, Canada and Australia. All courses at Rai University provide students with an opportunity to transfer their credits in the second or third year to a foreign University through a unique credit mapping and transfer system.

Entrance cum Scholarship test on

5th & 12 th July 2003

(10:00am to 12:00 noon)

At all centres

Rai University, Raipur

Raipur : Tel : (0771) 3105210-15 Email: raipur@raiuniversity.org **Delhi Centre** : A- 41, MCIE, Mathura Road, New Delhi-44 Tel : (011) 2695 9000, 5156 0000, 5157 0000 Fax : (011) 2695 9999 Email : delhi@raiuniversity.edu **Mumbai Centre** : Foundation Towers, Sec-11/20, Belapur CBD, Navi Mumbai - 400614 Tel : (022) 27573166-9 Mobile : (022)32761342Email : mumbai@raiuniversity.edu **Bangalore Centre** : 19, Brunton Road(Near Passport office of MG Road), Bangalore - 560025 Tel : (080) 51124445-8 Mobile : (080) 31887338 Email : bangalore@raiuniversity.edu **Kolkata Centre** : 6, Waterloo Street, 2nd Floor, Kolkata - 700069 Tel : (033) 22100911-13 Mobile : (033) 31065314 Email : kolkata@raiuniversity.edu **Gurgaon Centre** : 486 Udyog Vihar, Ph-III, Gurgaon - 122016 Tel : (0124) 2345624-26 Mobile : (011) 32740961Email : gurgaon@raiuniversity.edu **Pune Centre** : 36/3B, North Main Road, After ABC Farms, Koregaon Park, Pune - 411001Tel. : (020) 6814029/37 Mobile : (020) 31023715 Email : pune@raiuniversity.edu **Kosi Centre(U.P.)** : 99 km stone, Delhi-Agra Highway, Vill. Hasanpur, Kosi Kalan - 281403, Mathura (U.P.) Tel : (05662) 34801- 804 Mobile : (011) 32740931 Email : kosi@raiuniversity.edu **Kochi Centre** : No. XIII/960, Karuvelipadi, Thoppumpady, PO Kochi Mobile : (0484) 3121180/81/82/83/84 Email : kochi@raiuniversity.edu **Goa Centre** : Mobile : (0832) 3101872, 09820525286 Email : goa@raiuniversity.edu **Lucknow Centre** : 104, Legacy Apartments, Jopling Road, Lucknow Tel. : (0522) 2206498 Mobile : (0522) 3113463 Email : lucknow@raiuniversity.edu **Bhopal Centre** : 56/1, Shamla Hills, Bhadbhada Road, Bhopal-462003 Tel : (0755) 5222264 Mobile : (0755) 3133192 Email : bhopal@raiuniversity.edu **Hyderabad Centre** : 6-30,31, 32, Opp. IDPL R&D Centre Bala Nagar, Hyderabad Tel : (040) 23774987-91 Mobile : (040) 31071659 Email : hyderabad@raiuniversity.edu **Behror Centre(Raj)** : 126 km. stone, Delhi-Jaipur Highway, Behror, Distt. Alwar-301701 Tel : (011) 2695 9000 Mobile: (011) 32740924 Email : behror@raiuniversity.edu **Pathankot Centre** : Jammu-Amritsar Highway, Near Canal Side Kotli, Pathankot Tel : (0186) 2265410/2228989 Mobile : 09814477474 Email : pathankot@raiuniversity.edu **Dehradun Centre** : 23, Race Course, Dehradun-248001 Uttaranchal Tel : (0135) 2623469 Mobile : (0135) 3106020, 3106027Email : dehradun@raiuniversity.edu **Chennai Centre** : **The Ashram** 49 -A, Subbramaniam St. Abhiramapuram, Chennai-18 Tel : (044) 24997073, 24670022 Email :chennai@raiuniversity.edu **Visakhapatnam Centre** : 3 Industrial Development Area, Mindi,Visakhapatnam (AP) Tel : (0891) 2517534 Mobile : (040) 31071660 Email : visakhapatnam@raiuniversity.edu

Rai University

EVOLVING THINKING MINDS

www.raiuniversity.org

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SYMBIOSIS INSTITUTE OF BUSINESS MANAGEMENT (CONSTITUENT OF SIEC DEEMED UNIVERSITY)

Senapti Bapat Marg
Pune - 411 004
Tel: 020-5654626/5676875
Fax: 020-5659499
Email: sibm@vsnl.com
Website: www.sibm.edu

GENERAL INFO

SIBM is into its Silver Jubilee Year and is one of the flagship institutes of Symbiosis Society. SIBM was conferred the status of a Deemed University by the Ministry of Human Resource Development, Government of India as on May 6, 2002.
Year of Establishment: 1978

STUDENT BODY

Number of students currently enrolledin the institute

MBA	120
MBA (FS)	40
MPACM	40
Total number of students	200

ACADEMICS

Director: Prof. Arun D. Mudbidri
Full Time Faculty: 13
Part time Faculty: 187
Computer Terminals: 90
Courses Offered: 3 Full time (MBA, MBA FS, MPACM)

ADMISSION PROCEDURE

Candidates are selected on the basis of their performance in a Written Test followed by a Group Discussion and Personal Interviews
The written test is conducted all over India at 13 different centres
Group Discussion & Personal Interviews are conducted only in Pune.

DATES & DEADLINES

MBA/ MPACM
Last date for issue of Application form: December 26, 2003
Last date for submission of Application form: December 31, 2003
Written Entrance Test: January 18, 2004 - 10.00 a.m. to 1.00 p.m.
Group Discussion and Interviews: MBA - February 17, 18 and 19, 2004
MPACM - February 20 and 21, 2004

SUMMER PLACEMENTS

Total number of companies visiting the campus: 120

Top 10 companies

Hindustan Lever
DSP Merrill-Lynch
Glaxo Smithkline
Britannia
Cadburys
Ogilvy & Mather
ITC
Pepsi
Procter & Gamble
Wipro

FINAL PLACEMENTS

Total number of companies visiting the campus : 124

Top 10 companies

P&O Nedlyod
Glaxosmithkline Consumer Healthcare
Britannia Industries Ltd.
ITC Ltd
Marico
Castrol
Gillette
Perfetti Van Melle
HPCL
Wipro Ltd.

Highest Salary offered: Rs. 8.5 lacs per annum
Average Salary offered: Rs. 4.5 lacs per annum

FEES

Tuition Fees:
MBA: Rs. 90000/- per year
MBA FS: $2000 per year
MPACM: Rs. 80,000 per year

* Please visit our site www.sibm.edu for further information and registration.

FROM THE DIRECTOR

The unique, lifelong relationship it shares with its students is what sets SIBM apart. Like a compassionate mother, SIBM dotes on every child and never forsakes him/her. We have a unique two-month initiation programme for the entrant prior to joining the 2-year curriculum. Even after the final semester, our students are further prepared for their new responsibilities as corporate executives. The student always has an anchor at SIBM no matter where life takes him.

RESEARCH & SEMINARS

SIBM now puts precepts into practice. It has three new services for corporates:

The Knowledge depository service is the information bank that has all the latest business knowledge base that one requires.

The Market Research Cell addresses all marketing worries and offers researched guidance in further strategies.

Management Development Programmes with the best and highly updated programmes refresh a company's human resources.

STUDENT LIFE

At the Symbiosis Institute of Business Management the highlight of your student years is the in-house mentorship programme. Under the programme, an industry professional interacts with you and initiates you into the real, practical world. You are exposed as a result to the demands of the industry.

This relationship between the institute and the student continues even after final placement under the banner of 'young managers development programme'. Thus you know what to expect in a job.

SIBM also offers a personalized balanced scorecard methodology for students' overall development in order to help them keep track of their growth curve.

25
years
1978 - 2003
SIBM

Ravindra Khanna,
Country President & CEO, Delphi
Alumnus: 3rd batch

Jagdish Kini,
CEO, Bharati Tele Ventures.
Alumnus: 3rd batch

Ranjan Acharya,
Corporate VP, HR, Wipro.
Alumnus: 1st batch

Pradeep Gidwani,
M.D., Fosters India Ltd.
Alumnus: 7th batch

JUST A FEW OF THE BUSINESS LEADERS WE'VE CREATED FOR WORLD INC. OVER THE PAST 25 YEARS.

For the past 25 years Symbiosis Institute of Business Management (SIBM) has built a solid reputation of developing successful leaders of organizations across the globe. SIBM is the flagship management Institute of Symbiosis Society and an integral part of the Symbiosis International Educational Centre (SIEC), Deemed University, it has been consistently ranked among the top business schools in the country and has blazed ahead in its endeavour to provide their corporate partners with up to date information and training on relevant topics through their Management Development programmes (MDPs).

SIBM offers

MBA: Master's in Business Administration

2 years, full time, Post Graduate Degree Programme

MPACM: ***Master's Programme in Advertising & Communication Management***

2 years, full time, Master's Diploma Programme

Today, SIBM offers an exclusive Market Research cell for corporate partners to chart out strategies. In addition this elite Institute also provides online Information Service that has all the latest business knowledge base that Corporate India requires.

Prof. Arun Mudbidri
Director

॥ वसुधैव कुटुम्बकम् ॥

Symbiosis Institute of Business Management (SIBM)

(Constituent of Symbiosis International Educational Centre (SIEC), Deemed University)

Senapati Bapat Road, Pune - 411 004(India). Tel: 020-5654626, 5676875. Fax: 020-5659499.
E-mail: sibm@vsnl.com **www.sibm.edu**

Seagull

SIES COLLEGE OF MANAGEMENT STUDIES

Sri Chndrasekarendra Vidhyapuram, Plot-1E,
Sector-VNerul, Navi Mumbai - 400 706
Telephones: 2770 8376 / 77 / 79 / 85
Fax: 2770 8379
Email: siescoms@bom4.vsnl.net.in
Website: www.siescoms.edu

GENERAL INFO

Type of school: Private. Promoted by the South Indian Education Society, one of the oldest educational societies in Mumbai
Year of Establishment: 1995

STUDENT BODY

Full-time: Around 500
The college does not have any part-time graduates.

ACADEMICS

Director: Dr. A.K. Sen Gupta
Faculty (core): 15
Faculty (visiting): 45
Computer Terminals for Student Use: 90

COURSES OFFERED

Master in Management Studies (MMS) -- Two-year full-time
Post-Graduate Diploma in Business Administration (PGDBA) -- Two-year full-time
Post-Graduate Diploma in Pharmaceutical Management (PGDPM): Two-year full-time
Master in Computer Application (MCA): Three-year full-time

ADMISSION PROCEDURE

For MMS, 35 per cent seats are through central allotment process of the University of Mumbai/Directorate of Technical Education, Maharashtra.
50 percent seats reserved for linguistic minority (mother tongue South Indian languages) is through the institute's own test.
Remaining 15 per cent seats are for management quota.
For PGDBA & PGDPM, the admission process is through own CET as well as through AIMET and MAT.
For MCA (both for the linguistic minority as well as open category), the admission is through own test.

DATES AND DEADLINES

For Master in Management Studies, the admission usually takes place in February/March every year.
For PGDBA/PGDPM programmes, the entrance examination is held in February/March on an all-India basis.
The Master in Computer Application admission process takes place in the month of March/April every year.

SUMMER PLACEMENTS

Participating companies: 100 approximately
Top 10 companies

Cadbury
ICICI Bank
ICICI Prudential
Keynote Corporate Services
Mahindra & Mahindra
Novartis
Shapoorji Paloonji
Siemens
Sun Pharmaceuticals
UTI Bank.

FINAL PLACEMENTS

Participating companies: 90 approximately
Top 10 companies

Asian Paints
Clariant
Doctor Reddy's Lab
E-Serve
HDFC Bank
HDFC Standard Life
Ispat Industries
Mahindra & Mahindra
Nicholas Piramal
Steelage

FROM THE DIRECTOR

Though SIESCOMS is hardly eight years old, it has come a long way. The market place is witnessing radical change and competition is on the rise.

We constantly experiment with new ideas to improve our academic process. In five years from now, we are confident of emerging as one of the best B-schools in the country: vibrant and innovative.

INSIDE THE CLASSROOM

The focus at SIESCOMS is on learning and not on teaching. The pedagogic approach, therefore, is more attuned towards case study discussions, group learning, assignments, projects, role-plays and simulation.

The objective is to make the classroom discussions as interactive and interesting as possible in order to create future corporate leaders that are well-rounded individuals.

RESEARCH & TRAINING

SIESCOMS is involved in a number of public as well as company specific training programmes. Some clients for include Siemens, WNS (A wing of British Airways), M & M, BASF India Ltd., Tracmail, Glenmark Pharmaceutical Ltd.

The recently set-up research cell is involved in a number of sponsored as well as self-initiated research projects.

STUDENT LIFE

Students are involved in all activities of the institute, be it the selection of the visiting faculty members, the purchase of library books or the process of improving the admission mechanism.

The students are also encouraged to participate in extra-curricular activities. One of the main initiatives of the students this year has been to start on a voluntary basis the teaching and learning of the German language.

SIES College of Management Studies
Sri Chndrasekarendra Vidhyapuram, Plot-1E, Sector-V
Nerul, Navi Mumbai - 400 706
Tel.: 2770 8376 / 77 / 79 / 85 Fax: 2770 8379
E-mail: siescoms@bom4.vsnl.net.in
Website: www.siescoms.edu

Share your educational experience with SIES College of Management Studies (SIESCOMS), Navi Mumbai where educational journey means something different from others.

Unique features / initiatives include:

- Focus on **learning** and not on teaching
- **Ownership** of students in all institute activities
- Endeavor to develop **leaders** and **softer skills** (through a structured leadership trait development program) and not mere managers
- First B-School in the **Western India** to get ISO 9002 certification for quality management education
- One of the few business schools to offer a **foreign language** as an elective
- One of the few business schools where **business process re-engineering** is continuous
- First B-school in the country to offer elective in non-management subjects like "**Journalism**", "**Social Enterprise Management**", "**Indian Culture & Heritage**"
- First B-school in the country to start the concept of **project guide felicitation**

Outcome:

- Considered one of the **better managed** and **progressive business schools** in the country despite being hardly 8 years in existence
- Ranked among **Top-50 business schools** as per latest surveys (Outlook, September 9, 2002 & Business India, October 14-27, 2002)
- Strong **corporate patronage**

Journey continues and many more initiatives are on anvil

SYMBIOSIS INSTITUTE OF MANAGEMENT STUDIES

Address: Range Hills Road,
Kirkee, Pune-411 004
Telephone: +(91) 020 5810823 / 5815240 / 5816009 / 5812003
Fax: +(91) 020 5816007
Website: sims.edu

GENERAL INFO

Type of Institute: Autonomous, non-profit institute established by Symbiosis Society For Defence Personnel and their Dependents (80 per cent seats reserved)
Year of Establishment: 1993

STUDENT BODY

Full Time Graduates: 480 students
Part Time Graduates: 150 students
Total Graduates Population: 630 students

ACADEMICS

Founder Director: Dr. S.B. Mujumdar
Director: Prof. D.S. Kadam
Faculty Full Time: 4
Faculty Part Time: 70
Computer terminals for student use: 100

COURSES OFFERED

PG Diploma In Management (PGDM) Dual Specialization - 2-year full time
PM & HRD - 2-year full time
PGDM (Telecom Mgt & IT) - 2-year full time
PGDM (International Business) - 2-year FT
Executive Post Graduate Management (Exe-PGPM) -2-year part-time
Open to serving personnel and ex-servicemen of the defence forces, their children and working executives.
One-Year Part - Time Programmes
Pune-based serving personnel and ex-servicemen of the defence forces, their children. A few seats are also open for the general public.
Diploma in Marketing Management (DMM)
Post Graduate Diploma in Personnel Management (PGDPM)
Diploma in Business Management (DBM)

FROM THE DIRECTOR

Towards the ideal of enabling all people to achieve maximum benefits from their educational experiences, SIMS seeks to be a world leader in groundbreaking cross-disciplinary inquiry that shapes educational practices, their conceptual underpinnings, and the professions that serve the enterprise. The institute also seeks to develop the knowledge, wisdom, and imagination of its students to enable them to take leadership positions in the knowledge organizations of tomorrow.

COLLEGE ACTIVITIES

Every student while pursuing a course in SIMS has to face the grind of long hours in the classrooms, dedicating time to academics. The experienced and knowledgeable faculty ensures that the sessions are interactive and encourage students to voice their opinions on various issues. This initiates healthy and productive discussions in the classrooms. A Simsite always has his hands full with self-study and group presentations. There is a wide spectrum of opportunities available outside the class. All these activities contribute in developing the overall personality of the students and thereby form a valuable part of grooming at SIMS. Here, there is equal focus on academics as well as co-curricular activities.

RESEARCH & SEMINARS

Classroom presentations are an inseparable part of the learning process in SIMS. The students undertake research activities and case studies on various subjects to improve their knowledgebase. In our search for excellence we organize annual NATIONAL SEMINARS wherein we bring together a blend of the best intellectual and managerial talent from India and abroad. The national HR SEMINAR is conducted with the motive of bringing the students with the corporate HR managers. It has stalwarts of India Inc bring forth different perspectives on the burning HR issues of today.

ADMISSION PROCEDURE

1. Combined entrance examination comprising four sections - Reading Comprehension, Data Interpretation, Quantitative Ability and Analytical Ability (150 marks) and General Knowledge (50 marks). Venues: Bangalore, Kolkata, Ambala, New Delhi, Lucknow, Chandigarh, Kathmandu, Hyderabad, Mumbai & Pune
2. Group Discussion
3. Industry Experts Panel Interview.
4. Merit List.

DATES AND DEADLINES

Last Date for receiving application - Dec 31
Date of Entrance Exam (3.00 to 6.00 PM) - Second Saturday of January
Declaration of the short listed candidates - 10 to 15 days after entrance examination
Date for group discussion and interview at Pune - First week of February
Selection - Last week of February
Beginning of new session - June 15

SUMMER PLACEMENTS

Since its inception in 1993 over 150 companies have visited SIMS.

Some of our top recruiters this year were-

American Express,Toyota International, Standard Chartered, Citicorp-Maruti Finance, Shalina Labs, GE SBI, ICICI Prudential, Colliers International, HDFC, Maersk Sealand, Hewlett Packard,

Highest Salary Offered: 7.2lacs per annum

Average Salary offered:2.3 lacs per annum

FEES

Tuition Fees
PGDM (DUAL SPECIALISATION) AND PM&HR
1ST YEAR - RS.63, 450
2ND YEAR - RS.81, 450
(For the students opting for systems as their specialization the fees for the second year is Rs.106, 450)
The fees for the industry sponsored category is 2.5 times the figures stated above
The hostel fees are Rs.25, 000 p.a. This is not inclusive of the mess charges of Rs.1, 300 p.m.

SCHOLARSHIPS

SIMS offers numerous scholarships, awards and fee waivers

Symbiosis Institute of
Management Studies
SIMS

Welcome to Mission SIMS

SIMS Mission:

An endeavour to achieve a synergistic union of the Defence Forces and the Industrialised world through Management Education, leading towards an enlightened and disciplined society.

An endeavour to create a complete Management professional.

Started to serve the noble cause of defence personnel, Symbiosis Institute of Management Studies (SIMS) is an autonomous, non profit management institute established by the Symbiosis Society at the request of the Director General Resettlement, the Ministry of Defence. The ISO 9001 Certification has established SIMS as a distinguished establishment of meritorious cadre.

The new residential campus lies sprawled across 4 acres and is fully equipped with: • Gymnasium •Canteen •Swimming Pool •Faculty Quarters •Health Centre •Computer Lab •Workshop Hall •Hostel (Ladies & Gents) •Library •Auditorium •Seminar Hall

॥ वसुधैव कुटुम्बकम् ॥

Symbiosis Institute Of Management Studies (SIMS)
(For Defence Personnel & their Dependants)
Range Hills Road, Kirkee Cantt., Pune 411020, Tel.: 020 5815240, 5810823
Fax: 020 5816007 Website: www.sims.edu Email: dirsims@vsnl.com

Seagull/SIMS/06-03/16

SYMBIOSIS INSTITUTE OF TELECOM MANAGEMENT

Atur Centre, 5th Floor, Plot No. 1068, Gokhale
Cross Road, Model Colony, Pune 411 016
Telephone: 5671911/5674150
Fax: 5675953
Email: sitm@vsnl.com
Website: www.symbiosistelecom.com

GENERAL INFO

Type of Institute: Autonomous
Year of Establishment: 1996

ACADEMICS

Director: Mr Virender Kapoor
Deputy Director: Mr B.V. Marathe
Full-time faculty: 9
Visiting faculty: 48
Computer terminals: 65

COURSE OFFERED

PG diploma in Telecom Management with focus on three components - Management, Telecommunications and Information Technology - two-year full-time programme offering dual specialization in Marketing and Finance as well as System and Finance

ADMISSION PROCEDURE

First phase: Written test

Second phase: Group Discussion and Interview for short-listed candidates

Eligibility: The minimum requirement for admission is a graduate degree in any discipline from a recognized university with minimum 50 per cent marks in the qualifying examination.

Final year students are also eligible to apply.

DATES & DEADLINES

Commencement of sale of prospectus:
October 6, 2003
Last for acceptance of forms:
January 23, 2004
Written test: January 31, 2004
(Saturday 3 pm to 4.30 pm)
Group Discussion and Personal Interview in Pune: Second and third weeks of February 2004

FROM THE DIRECTOR

SITM is committed to the development of world-class technology business leaders who can ease into the rapidly changing technology scenario. The curriculum aims at bridging the gap between technology and management in a very efficient way. There is an emphasis on overall personality development, communication skills, fostering teamwork, instilling human values and, above all, inculcating a diehard attitude.

INSIDE THE CLASSROOM

Classroom training encompasses theoretical and conceptual inputs while extending its traditional boundaries to capsules of case studies, quizzes and mock presentations by students. Corporate programmes, guest lectures, workshops and personality development programmes form a regular feature of SITM's classroom teaching.

RESEARCH & SEMINARS

Research projects are conducted over and above the regular curriculum. Current topics in the telecom vertical are studies in depth by a group of students under an industry guide from the relevant field. The National Telecom Seminar conducted every year is the flagship event of the institute. It is aimed at bringing academia and the industry on a common platform to discuss issues crucial to the telecom industry.

STUDENT LIFE

At Symbiosis, the mission is to create leaders and good citizens with moral courage, team spirit, enthusiasm and a sense of honour. A moral rearmament camp is organized every year at Panchgani by the Asia Plateau Team.

The Symbiosis Health Centre provides an in-house state-of-the-art health club and fitness center. Yoga and meditation are provided in customized capsules suited to the unique requirements of the students.

SUMMER PLACEMENTS

All reputed IT and telecom companies visit the campus.

Top 10 companies

IBM Global Services
Siemens
LG
Oracle
Hughes Escort
Tatanet
Spice Telecom
Alcatel
Onward Novell
Price Waterhouse Coopers

FINAL PLACEMENTS

All reputed IT and telecom firms recruit from the campus.

Top 10 companies

Hewlett Packard Compaq
Bharti
Reliance Infocom
Ernst & Young
Frost & Sullivan
Tata Consultancy Services
Wipro
Tata Teleservices
Hutch Fascel
Satyam Infoway

Highest salary offered: Rs 6 lakhs per annum

Average salary offered: Rs 3 lakhs per annum

FEES

Tuition fees: Rs 68,000 per annum (subject to revision)

Fees for various student activities are charged extra

Management

Telecommunications

Information Technology

A B-school presenting a triple-action Management Programme

Symbiosis Institute of Telecom Management presents **Postgraduate Diploma in Telecom Management (PGDTM),** a two-year full-time autonomous management program with focus on three basic subjects: • Management • Telecommunications, and Information Technology . Therefore it truly can call itself a B-school with a difference!

It is the first of its kind in India and Asia, developing technology business leaders who are trained management professionals, to take on the emerging challenges in the corporate world of Telecom and IT.

Ever since its inception and even during the industry recessions last year, **SITM has achieved 100% placement**, which bears testimony to its position in the industry. The alumni have been making their mark in the industry as Technical and Business Consultants, Network Implementers, Project Leaders and Business Development Executives.

SITM is proactive and highly adaptable, changing its course structure to suit the trends in the industry. The broadband curriculum consists of inputs from the industry, seminars, industry projects, presentations, telecom site visits, research projects, besides formal classroom lectures. SITM also boasts of a **state-of-the-art CISCO Lab.**

SITM campus, Atur Centre

Symbiosis Institute of Telecom Management (SITM)

|| वसुधैव कुटुम्बकम् ||

Atur Centre, 5th Floor, Gokhale Cross Road, 1068, Model Colony, Pune- 411 016 (India). Tel: 020-5674150, 5671911.
Telefax : 020-5675953. E-mail: sitm@symbiosistelecom.com Visit us at www.symbiosistelecom.com

Seagull/SITM/6-03/15

S.P. JAIN INSTITUTE OF MANAGEMENT & RESEARCH

Munshi Nagar, Dadabhai Road, Andheri (W),
Mumbai 400 058
Admissions Phone: 26237454/2401
Fax: +91 22 26237042
E-mail: spjicom@spjimr.ernet.in
Website: www.spjimr.org

GENERAL INFO

Type of School: Recognized by AICTE
Year of Establishment: 1981

STUDENT BODY

Full-time graduates: 340
Part-time graduates: 133
Total graduate population: 473

ACADEMICS

Dean: Dr. M.L. Shrikant
Full-time faculty: 30
Part-time faculty: 11
Computer terminals for students' use: Each student has a laptop

COURSES OFFERED

PG diploma in Management with following areas of specialization - Finance, Marketing, Manufacturing & Operations, Information Management - Two-year full-time
MBA for working executives - 18 months part-time
Family Managed Business Programme - 18 months part-time
PG diploma in IT - Two-year full-time

ADMISSION PROCEDURE

CAT entrance test is followed by Group Interviews. 100 per cent merit based. No quotas.

DATES & DEADLINES

Last Date for issue of application form:
November 27, 2003
Last date for submission:
November 30, 2003
Written examination:
CAT November 23, 2003
Group Discussion and Interview dates to announced on the Institute's website

FROM THE DIRECTOR

Education at SPJIMR is a perfect synthesis of the western emphasis on efficiency and an eastern focus on values and ethics. This is reflected in our unique programmes such as ADMAP (Assessment and Development of Managerial Potential), Gita shibirs and various outbound programmes, which help students acquire a holistic perspective to their growth.

INSIDE THE CLASSROOM

The curriculum consists of classroom learning, group learning as well as non-classroom learning. Assessment and Development of Managerial Potential is a value-added approach where students develop managerial and attitude through participation in everyday activities of the Institute. Personal growth labs and lectures by eminent personalities also form an important part of the learning curve.

RESEARCH & SEMINARS

Research at SPJIMR is designed to impact industry practice at a practical level. The knowledge seminars are industry focused with a strong emphasis on current topics. CEOs and top management professionals share their insight with young managers on broad managerial issues. These seminars offer students a complete management perspective.

STUDENT LIFE

The management study programme offred by the institute is a residential course, which encourages students to develop friendship with fellow students.

On the campus, strong friendships are built and they continue to blossom even after college.

A feeling of camaraderie and a sense of belonging knit them together. Participation in extra-curricular activities adds freshness to academic life.

SUMMER PLACEMENTS

SPJIMR does not have traditional summer projects. Under a Development of Corporate Citizenship programme, students undertake a social project with an NGO or CSR division of a corporate.

SPJIMR has autumn projects during Oct-Nov, which is used by companies to evaluate students for final placement.

Companies visiting the campus: 46
Top 10 companies

GE Group
HCL Technologies
Tata Group
Hindustan Lever
Colgate Palmolive
Nestle, Citibank
ICICI Bank
Asian Paints
Johnson & Johnson

FINAL PLACEMENTS

Companies visiting the campus: 62
Top 10 companies

GE Group
HCL Technologies
Trinity Corp
Tata Group
Wipro Technologies
Hindustan Lever
Cadburys
Asian Paints
Johnson & Johnson
Pepsi

Highest salary offered: Rs 12.9 lakh per annum
Average salary offered: Rs 6.35 lakh per annum

FEES

Tuition fees: Rs 90,000
Hostel fees: Rs 16,500
Other fees: Rs 33,000

SCHOLARSHIPS

Name of scholarship: GE Scholarship
Financial aid to students: Nil

"I took the road less traveled by, and that has made all the difference."

– Robert Frost

Do you listen to a different tune? Do you march to a different beat?

If yes, there is one management school that values this difference. The difference that creates fresh and inspiring ways of learning.

This difference is reflected in the innovative system of education at SPJIMR. The curriculum is divided into formal classroom learning and practical activities such as ADMAP (Assessment and Development of Managerial Potential), Outbound programs, Gita shibirs and 'Development of Corporate Citizenship program'.

SPJIMR has strong programs for young inheritors of family managed business and e-MBA program for working executives.

These unique programs enable students to tackle management issues in real time. A western emphasis on efficiency delicately blended with an eastern focus on values and ethos help students to acquire an integrated approach to their personal growth.

The students of SPJIMR are hardworking, willing to roll up their sleeves and stay for a longer duration with a company.

The proof that SPJIMR produces a different breed of MBAs is evident in the fact that they find a place for themselves with top corporates across the world.

If this is your true calling, SPJIMR is the place to be in.

BHARATIYA VIDYA BHAVAN

S.P. Jain Institute of Management & Research

Munshi Nagar,
Dadabhai Road, Andheri (W),
Mumbai 400 058.
India.

Tel.: 2623 0396 / 2401 / 7454
Fax.: +91-22-26237042
Email: spjicom@spjimr.ernet.in
Visit us at www.spjimr.org

DIREM/SPJ/01/2003

TASMAC

TASMAC House, Plot No. 14, TASMAC Road,
Viman Nagar, Pune 411014
Telephone: +91 (0)20
4003871/4003872/6632456/6632893
Fax: +91 (0)20 4001431
E-mail: enquiries@tasmac.ac.in
Website: www.tasmac.ac.in
Bangalore Campus: TASMAC House, 7/6, Bull
temple Road, Basavangudi, Bangalore 560 019
Telephone: +91 (0)80 6606942
Fax: +91 (0)80 6606943
E-Mail: tasmacblr@tasmac.ac.in

GENERAL INFO

Established in 1990, TASMAC is the first management institute in India to obtain the prestigious ISO 9001:2000 Certification. It is also the only institute outside UK/Europe to be accredited by the British Accreditation Council for Further Independent and Higher Education (BAC).

STUDENT BODY

MBA - 50 students
BA (Hons) - 30 students
MSc - 20 students

ACADEMICS

Dean: Mr. Sameer Dua
Principal: Mr. Ajoy Nair

COURSES OFFERED

TASMAC has been validated by University of Wales, UK, to offer its degree programmes:

MBA with specialization in Finance, Marketing, Human resource in Management and Information Management - one-year full-time
MSc in Information Systems - one-year full-time
BA (Hons) in Business Administration - Three academic sessions (6 semesters of 4 months each) + 6 months project study

ADMISSION PROCEDURE

Duly filled in application form to be submitted along with academic records, two passport size photographs and an application fee of Rs 5000. If accepted, the student will get the formal acceptance package consisting of an offer letter, fee sheet, acceptance offer form, accommodation details and the meet and greet form. The acceptance form should be filled in and returned to TASMAC at the earliest. The fee has to be paid through a demand draft in favour of TASMAC, Pune on the first day of the programmes at the time of registration.

FROM THE DIRECTOR

At TASMAC, we integrate sound theoretical knowledge of business situations with practical experience in real corporate situations. This integration offers the most pragmatic mix of the most advanced business education possible, where the needs and aspirations of the students are understood and harnessed to the fullest. Graduates from the institute are equipped to face the challenges of the workplace with a high degree of confidence.

STUDENT SERVICES

As a student-focused business school, TASMAC has a Student Services Manager looking into all reasonable demands of the students, a mentor, an academic/administrative staff member allotted to each student. A dedicated faculty is our greatest asset. Feedback, analyses and improvement are a constant process. In addition, in-session English, basic accounting concepts, elementary computing and career guidance offer a complete learning experience.

LEARNING METHODOLOGIES

With its simple but effective approach to teaching, TASMAC has adopted a blend of a variety of modes of delivery - lectures, seminars, workshops and case studies. Ongoing practice and assessment of communication skills is conducted. Various methods of assessment are employed. A 21-point managerial skills development programme, Pathways to Success, has also been formulated.

RESOURCES & FACILITIES

TASMAC has international level up-to-date classrooms, a well-stocked library, audio-video facilities, conference halls and seminar rooms.

The institute also has a tie-up with Body Talk, a fitness gym, and a pool table on the campus. Good, comfortable and secure residences are within walking distance of the campus.

DATES & DEADLINES

The academic year at TASMAC consists of three semesters of 15 weeks each with the final examination being held in the last week of each semester.
February intake: Last date for receipt of applications - Jan 15, 2003
June intake: Last date for receipt of applications - May 15, 2003
October intake: Last date for receipt of applications - September 17, 2003

PLACEMENTS

TASMAC assists students in securing good placements. The following companies, among others, have agreed to visit the campus:

Birla Sun Life
BNP Paribas
BPL Mobile
Dynamic Logistics
Ernst & Young
Forbes Marshall Ltd
Greaves Ltd
Hindustan Lever
HDFC, ICICI Prudential
Kotak Mahindra
Kumar Builders
Le Meridien Hotel
OTIS Elevator Company
SKF Bearings
TATA Honeywell
Zensar Technologies

FEES

MBA & MSc: Sterling Pounds 3000 or equivalent in India Rupees
BA (Hons): Sterling Pounds 4950 or equivalent in Indian Rupees
Hostel fees
For ladies: Rent for double room is Rs 3500 per month and for single room Rs 4000 per month
For gentlemen: Rent for shared rooms without the terrace is Rs 3000 per month and for rooms with terrace Rs 3300 per month

BACK YOURSELF TO ACHIEVE MORE... TARGET A GLOBAL CAREER.

Get a prestigious British Management Degree in India !

UNIVERSITY OF WALES, U.K.

MBA, MSc in Information Systems & BA(Hons) in Business Administration Degree Programmes now, in Pune, India.

TASMAC, the first institute outside UK and Europe to be accredited and recognised by British Accreditation Council for Independent Further and Higher Education (BAC),UK. India's first ISO 9001:2000 Certified Institute, and one of India's leading autonomous business schools has been validated by University of Wales, UK to offer the MBA, MSc in Information Systems and BA (Hons) in Business Administration Degree Programmes in India at their state-of-the-art campus. University of Wales is the 2nd largest University & one of the 4 Federal Universities in UK.

MBA

MASTER OF BUSINESS ADMINISTRATION

Specialisations : Finance, Marketing, Human Resource Management and Information Management.

Duration : 1 Year (Full Time)

MSc IN INFORMATION SYSTEMS

Duration : 1 Year (Full Time)

BA (HONS)

IN BUSINESS ADMINISTRATION

Specialisations : Finance, Marketing, Management and Information Management

Duration : 3 Academic sessions (6 semesters of 4 months each + 6 months project study)

Programme Highlights/Advantages -

- Opportunity to get a British Management Degree right here in India
- The degree is awarded by University of Wales, the second largest University in UK
- University of Wales is one of 4 Federal Universities, the others are University of Oxford, University of Cambridge and University of London!
- Programmes are contemporary and forward looking in nature
- Programmes include core training in transferable skills
- British Degrees are valued and respected worldwide
- Choice of three starting dates for flexibility
- Programmes accelerated in nature, thus helping students enter employment earlier.
- Fees much lower compared to similar programmes in UK. In addition, students save on travel, accommodation and other expenses.

Placement Support - The industry has been very receptive towards TASMAC students with an overwhelming response. We provide excellent placements for our students.

For complete prospectus/application forms, please send DD/MO/IPO of Rs. 500/- to :

TASMAC™ TRAINING & ADVANCED STUDIES IN MANAGEMENT AND COMMUNICATIONS LTD.

Corporate Office and Pune Campus : TASMAC House, Plot No. 14, TASMAC Road, Viman Nagar, Pune-411014 (India) Tel.: 0091-(0)20-4003871/4003872/6632456/6632893 Fax : 0091-(0)20-4001431
E-mail : wales@tasmac.ac.in **Web :** www.tasmac.ac.in/wales

TASMAC Bangalore Campus : TASMAC House, 7/6, Bull Temple Road, Basavangudi, Bangalore - 560 019
Tel. : 0091(0)80 6606942 Fax : 0091(0)80 6606943 E-mail : tasmacblr@tasmac.ac.in

INFORMATION CENTRES - Mumbai : Tel.: 0091 (0)22 24923656/24936430. **Hyderabad :** Tel.: 0091 (0)40 55662724 / 55662725. **Kolkata :** Tel.: 0091 (0)33 24649610 / 24643988.

Pratisaad/03/03/243

WELINGKAR INSTITUTE OF MANAGEMENT DEVELOPMENT & RESEARCH

Admissions Phone: 022-24178300
Fax: 022-24105585
Email: admissions@welingkars.org
Website: www.welingkar.org

GENERAL *INFO*

Type of School: Management Institute
First A grade B-school to be awarded the ISO-9002 certification by BVQI .
Year of establishment: 1977

STUDENT BODY

Full-Time Graduates: 480
Part-Time Graduates: 720
Total Graduates Population: 1200

ACADEMICS

Director: Prof. Dr. Uday Salunkhe
Faculty: Full Time 29
Faculty Part Time 80
Computer Terminals for Student Use: 132

COURSES OFFERED

International Programmes
International MBA (IMBA)-11 month tri national MBA Program in Welingkar (India), Temple University (USA) and Japan
World Class Management - in Welingkar (India) and in Hamamatsu University (Japan)
2 year Full-Time Post Graduate Programmes
Master in Management Studies (MMS)
Post Graduate Diploma in Business Administration (PGDBA)
Post Graduate Program in E-Business (PGPE-Business)
3 Year Part-Time Degree Programmes
Master in Human Resource Management
Master in Financial Management
Master in Marketing Management
Master in Information Management
Special Program: 6 month Professional Programme in Retailing

ADMISSION PROCEDURE

The eligibility for each of the above programmes is unique and is mentioned on the website. Besides the written test (details of which are on the website) Group Discussions and Personal Interviews are part of the selection process. Management Games and Psychometric Test are part of the selection process for the PGDBA and PGPE-Business program.

FROM THE DIRECTOR

Our focus is to grow into an educational body of international class. Be it students or faculty we strongly believe that exposure to international business environment can create visionaries rather than mere managers. Our campus is certainly among the best in the country but the mind that dreamt of it and made it a reality is what we wish to duplicate more than anything.

INSIDE THE CLASSROOM

Classrooms show different colours. While sometimes it depicts a gurukul where a learned faculty is sharing some new concepts, at other times it reflects a boardroom where student are brainstorming and discussing different options on a Case Study. The classroom is therefore like a preparatory ground for men and women gearing themselves up to participate in the global business environment.

RESEARCH & SEMINARS

The Welingkar Research Centre, headed by Dr. Anil Naik, undertakes research assignments. The institute also organizes People First, a forum for HR professionals and a Corporate Governance programme for Directors. A student body manages a Corporate Interface Cell that initiates seminars on contemporary business practices besides bringing in leaders from the industry.

STUDENT LIFE

At the Welingkar Institute of Management Development and Research, a student goes through several stages of development. He starts as a learner, goes on to become a team member, then graduates to being a contributor and finally joins the vision team.

The institute provide an ambience that encourages voracious reading and ceaseless intellectual exploration.

Besides producing "Samvad", the annual magazine, student teams manage crucial activities like Placements and Alumni relationship building. They also organize a popular Inter B-School Cricket tournament every year.

SUMMER PLACEMENTS

Total Number of Companies visiting the campus: 120

Some companies visiting the campus
Global internships (31 students)
Amex (USA), Nabeya Bi-tech Kaisha (Japan), Nishijimax (Japan), API Co. Ltd. (Japan), OSG Corporation (Japan), Juken Kogyo (Japan), BIDCO Oil Corporation (Kenya),Ghana Electric Corporation (Ghana), Indian,Reliance Infocomm, Deloitte Consulting Offshore Technology Group, Bharati Broadband, Novartis, Nicholas Piramal, Lowe, L&T Infotech, Godrej and Boyce, Castrol, Asian Paints

FINAL PLACEMENTS

Total Number of companies visiting the Campus: 169

Some of the companies visiting Campus
AT& T (USA), Aditya Birla Group, Datamatics Technologies, Hero Honda, ICICI Bank, BPL Mobile, HDFC Group, Wockhardt, Standard Chartered, Clariant E-serve, Essar, Global Trust Bank ,Ceat

Highest salary offered: Rs 5.2 lakhs per annum
Average Salary Offered: Rs 3.5 lakh per annum

FEES

The Fee structure is unique for each of the programmes and is mentioned in detail on the website.
The Institute provides guidance for availing Student loans
The Institute charges separately for the Hostel (Separate Girls and Boys Accommodation)

SCHOLARSHIP

Students selected for internships in Japan are awarded scholarships by the organizations awarding the internship.

ThinkWhyNot

S. P. Mandali's

1st "A" Grade ISO 9001 - 2000 Management Institute

WELINGKAR

institute of management development & research

Borderless Global Education

L. Napoo Road, Matunga (CR), Mumbai - 400 019. Ph: 2417 8300. • Email: admissions@welingkars.org • Website: www.welingkars.org

WIGAN & LEIGH COLLEGE INDIA

Address: 401-402, Skipper Corner,
88, Nehru Place,
New Delhi 110019
Telephone: 011-26443333, 26421861- 64
Email: mail@wiganindia.org

GENERAL INFO

Year of establishment: 1996

STUDENT BODY

Total number of students enrolled 2200

ACADEMICS

Dean: Ms. Malobika Sengupta
Director: Mr. Vinay Pasricha
Placement Coordinator: Mr. Sunil Gideon
In-House faculty: 46
Visiting faculty: 100

COURSES OFFERED

Two-year full-time PG Diploma courses in Business Management, Advertising and Marketing Communication and Apparel Merchandising and Marketing

Bachelor of Business Administration - 2 years in India, one year in UK

Integrated PG Diploma in Business Management - 4 years

One-and-half-year full-time PG Diploma courses in Visual Communication and Interactive Multimedia

Advance Diploma in Advertising and Graphic Design - 3 years full time

Diploma in Advertising and Graphic Design - 2 years part time

Post Diploma in Fashion Design - 1 ½-year full time

Advance Diploma in Fashion Technology- 3-year full time

Diploma in Fashion Technology - 2-year part time

PG Diploma in Mass Communication - 1½-year full time

Advance Diploma in Media Studies - 3-year full time

ADMISSION PROCEDURE

Entrance Examination format Stage 1 - Group Discussion
Stage 2 - Interview round with the college
Stage 3 - Interview round with the industry panel

INDUSTRY PARTNERSHIPS AND PLACEMENTS

Against the backdrop of continuing sluggishness in the global economy, Wigan & Leigh College, (WLC), India saw 100% placements. WLC has emerged as one of the leading further education institutions and the qualifications offered by the college are recognized by Wigan & Leigh UK, with a worldwide reputation. The first college in the country to offer the 'Learn and Earn' facility through its unique Traineeship programme wherein the students are placed on the very first day of joining the course, Wigan is referred as a 'world class' college by HT Horizons for its "career oriented courses with assured job placements".

WLC India is now in its eighth academic year and offers diverse and industry oriented programmes in the areas of Management, Marketing, Fashion Technology, Media, Hospitality, IT, Advertising & Graphic Design at its campuses in New Delhi, Mumbai, Kolkata, Bangalore, Dehradun and Indore. Students in these programmes get to work with any one of the partnering organizations like ICICI, HDFC, CRISIL, GE, HCL, HLL, Gillette India Ltd., Reliance, HTA, O&M, Maa Bozzell, Lintas, Mudra, Primesite, Jattin Koccher, JJ Vallaya, FCB Ulka, Ashish Soni for the entire duration of the programme and get paid for it. Wigan alumni have been absorbed and appreciated in some of the best companies in India, as they already possess traineeship experience unlike other colleges.

"Our Traineeship programme not only meets global standards but is also enhanced to suit the Indian market needs and those of potential employers. We make our students work with the best Indian and transnational companies that not only trains them academically but provides relevant on-the-job training." says Mr. Vinay Pasricha, Director, Wigan & Leigh College.

In just seven years, the Indian alumni now number over 3,500. The faculty and academic programmes provided by the college are incomparable. The college also has its own specialized Placement Cell, which continuously works in close cooperation with the Industry. The cell also assists the students in industry related activities like projects, industry training and organizing seminars.

DATES & DEADLINES

Issue of application form: 1st week of June
Last date for submission: Last week of July
Commencement of Course: 1st week of August
Entrance examination is held in Delhi, Mumbai, Kolkata, Bangalore and Indore

SUMMER PLACEMENTS

Traineeship programme is a part of all courses that provides practical training with the industry. On successful and satisfactory completion of the programme students are usually placed within the partnering organizations.

FINAL PLACEMENTS

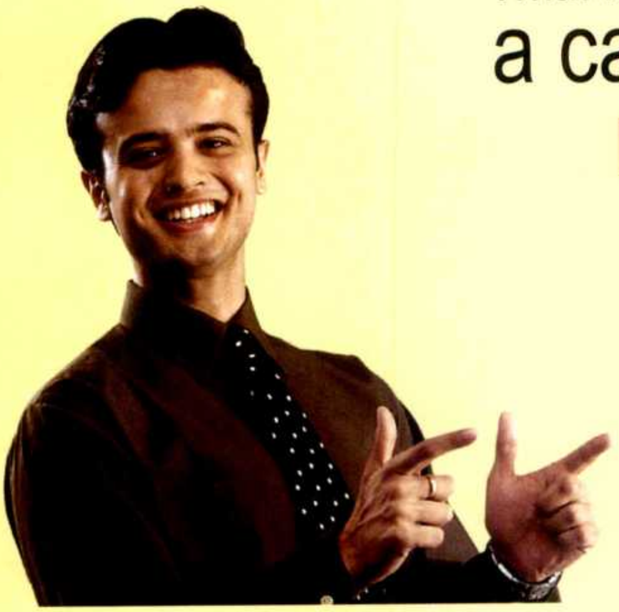
Names of Top 10 recruiters

Last year	**This year**
Kotak Securities	Godrej
HTA, Electrolux	HTA
KotakMahindra	AMEX
Aditya Birla Group	HDFC
Business Standard	ICICI
Godrej	S. C. Bank
Jatin Koccher	Wipro
GE	IDBI
HLL	Colgate
Amex	HLL
	Mafoi

Average salary
Last year: Rs. 2 lakhs per annum
This Year: Rs. 2.4 lakhs per annum
Highest salary
Last year: Rs. 3.96 lakhs per annum
This Year: Rs. 8.16 lakhs per annum
Lowest Salary
Last Year: Rs. 1.44 lakhs per annum
This Year: Rs. 1.5 lakhs per annum

My two years at Wigan have been very eventful in my life. Working at Reliance today I can face any challenge in the job market. The credit goes to the professional course, teaching methods and faculty of Wigan. - Mitrakant Parwal, ex- student, PGDBM, presently working with Reliance.

Wigan & Leigh has been one of my most profitable decisions in life.Experience here was different and the course structures here are global in line that prepare us for this highly competitive environment.- Akshay Moza, ex student -PGDBM, Presently working with Hilton in UK.



Avinash Banga, II Semester, Management Student

What would you rather opt for,
a career or college?

How about both?

Admissions Open for

Full-time / Part-time,
Under Graduate / Post Graduate
programmes in

- **Management Studies**
- **Mass Communication**
- **Advertising & Graphic Design**
- **Fashion Technology**
- **Hospitality Management**

ICICI, Standard Chartered, GTC, Electrolux, TBWA-Anthem, Carrier-Aircon, Godrej Appliances, Shamken Cotsyn, Provogue, Golden Strands, Macmillan India

Work with companies like these while studying at WLC **!**

Wigan & Leigh College (UK) is one of the largest further education institutions in UK with a worldwide reputation for quality education. The college now operates in 26 countries around the world and has 55,000 students.

About the Institution: Wigan & Leigh College (India) has been operational for the last seven years and its qualifications are recognised by Wigan & Leigh College (UK). Students study for internationally recognised qualifications leading to successful careers in India and abroad or onward progression to higher education.

Traineeship Programme: Leading Indian and multinational companies have partnered with us to offer this unique opportunity. The students get to work as trainees with these organisations and get paid an attractive stipend while still studying at the College. Furthermore, these companies will absorb the students as full time employees subject to successful completion of the course and satisfactory work performance.

The Courses: Wigan & Leigh College (India) certificates are recognised by WLC (UK), as equivalent to the following qualifications.

Undergraduate Courses: 3 Yr. Full Time Advanced Diploma in Fashion Technology/ Advertising & Graphic Design/ Media Studies/ Hospitality Management. 2 Yr. Part Time Diploma in Fashion Technology/ Advertising & Graphic Design. 4 Yr. Part Time Programmes leading to PG Diploma in Business Management. (Can be pursued along with graduation). BBA (2+1 Yr. Twining Programme)

Postgraduate Courses: 2 Yr. Full Time Post Graduate Diploma in Business Management (Specialisation in Marketing/ Finance/ HR/ International Business)/ Apparel Merchandising & Marketing/ Advertising & Marketing Communication. 1 1/2 Yr. Post Graduate Diploma in Visual Communication/ Interactive Multimedia/ Mass Communication/ Fashion Technology.

Eligibility Criteria:
For UG: 10+2 or equivalent qualification
For PG: Graduate in any discipline
Education Loan available

These qualifications are not recognised by AICTE / AIU.

Wigan Campuses:

New Delhi Campus: 86A, Central Avenue,
Sainik Farms, New Delhi-110062
Ph.: 98184 79333/ 98184 79444, 26421861-64
Email: delhi@wiganindia.org
Kolkata Campus: C-10, Satyam Tower,
3, Alipore Road Kolkata - 700 027
Ph.: 98304 22703/ 98304 22704/ 24487160, 24487161
Email: calcutta@wiganindia.org
Bangalore Campus: 30, Dickenson Road, Bangalore-560042
Ph.: 31816227/31821216/98450 95621/98860 30824
Email: bangalore@wiganindia.org
Mumbai Campus: D-WING, Modern Mills Compound,
101 Sane Guruji Marg, Jacob Circle, Mahalaxmi,
Mumbai - 400011, Ph.: 23015594, 56627470, 56623997
E-mail: mumbai@wiganindia.org

Education Loan available

WLC
Wigan & Leigh College

Education for the Next
Generation

New Delhi • Mumbai • Bangalore • Kolkata

CRAYONS

You can apply online at www.wiganindia.org or e-mail/mail your CV to any of the addresses given above. or call at any of the phone nos.

XAVIER INSTITUTE OF MANAGEMENT

Xavier Square, Bhubaneswar 751 013
Telephone: 0674-2300419/2300821/2300688
Fax: 0674- 2300995
Email: info@ximb.ac.in
director@ximb.ac.in

GENERAL INFO

Year of Establishment: 1987

STUDENT BODY

Students enrolled currently: 490

ACADEMICS

Director: Fr. E. Abraham, SJ
Dean: Prof. W.S. William
Placement Coordinator:
Prof. S. Harinarayana
In-house faculty: 30
Visiting lecturers on panel: 32

COURSES OFFERED

PG programme in Management - two-year full-time
Executive PG programme in Management - three-year part-time
PG programme in Rural Management - two-year full-time
Fellow programme in Management (started this year)

ADMISSION PROCEDURE

Entrance examination format: XLRI Admission test formats (XAT)

Venues for entrance examination: Bangalore, Bhopal, Bhubaneswar, Kolkata (3 centres), Chandigarh, Chennai (2 centres), Delhi (6 centres), Guwahati, Kanpur, Kochi, Lucknow, Ranchi, Patna, Secunderabad, Mumbai (3 centres), Jaipur, Jamshedpur, Pune, Nagpur and Vadodara

DATES & DEADLINES

Issue of application form: September-November
Last date for submission of application form: December 15
Written examination: First Sunday of January every year
Group Discussion: March
Interview: March
Commencement of Course: Mid-June

THE DEAN'S MESSAGE

XIMB is committed to expand the domain of knowledge, disseminate knowledge among the various segments of the society and train competent and responsible professionals through its academic, research, consulting, training and development activities. The fundamental values of the institution have resulted and will result in many illustrious achievements in the industry as well as in academics.

INSTITUTE PROFILE

XIMB, in a short span of 15 years, has emerged as one of India's top B-schools. The institute is spread over 20 acres and boasts state-of-the-art infrastructure. It has air-conditioned classrooms equipped with audio-visual teaching aids for imparting high-class management education.

XIMB was the first educational institution in the country to provide each student with a computer in his hostel room with round-the-clock Internet access.

The high-tech 850-seat XIMB auditorium is the only one of its kind in eastern India. It is equipped with multi-media facility and can be partitioned automatically through remote control.

The institute has indigenously developed AIS (Academic Information System), PAMIS (Project Accounting and Monitoring System, EOL (Examination online) and iSurvey (Internet Survey) to match world standards in the field of management education.

The institute is a pioneer in successfully implementing the first project of privatization of the power sector in Orissa. This is now being implemented in Andhra Pradesh, Karnataka and Noida as well. The World Bank has acknowledged this as a model for micro-privatisation internationally.

RESEARCH AND SEMINARS

XIMB offers a doctoral level Fellow Programme in Management, conducts various Research Review and Research Training Seminars. The faculty is involved in cutting edge research and consulting in various functional area of management. The faculty participates in various national and international research conferences and publishes papers/articles in the leading journals/magazines.

PLACEMENTS

A large number of companies visit the campus every year

Top 10 recruiters

Last year
Polaris Software Lab
Wipro ePeripherals Ltd
TCS
Birla Management Corp
Dabur India Ltd
HDFC
Mastek
Telco
ICICI
Wipro Infotec

This year
TCS
IRIS
Telco
GTB
KONE
ACC
SREI
MAGMA
Infovation
L & T

Average salary offered
Last year: Rs 4.2 lakhs per annum
This year: Rs 3.2 lakhs per annum

Highest salary offered
Last year: Rs 6 lakhs per annum
This year: Rs 9.5 lakhs per annum

Lowest salary offered
Last year: Rs 2.4 lakhs per annum
This year: Rs 1.6 lakh per annum

FEE STRUCTURE

Tuition Fee: Rs 2,55,000/-
Hostel Fee: Rs 20,700/-

OUR PRODUCTS ARE MANAGING SOME OF THE BEST PRODUCTS OF THE COUNTRY AND ABROAD

Be it Corporate Sector or Social Sector;
be it in India or in a Foreign land,
the alumni of XIMB are facing challenges
and winning accolades in their march towards excellence.

What makes this happen!

- **The Institute that is ranked among the top 10 B-Schools in India.**
- **The Institute with modern infrastructure amidst the bounteous green providing peaceful environment for education.**
- **The Institute having air-conditioned classrooms equipped with up-to-date Audio-visual teaching aids.**
- **The Institute that pioneered to provide each student a computer in their hostel rooms with round the clock Internet access.**
- **The Institute that has indigenously developed its AIS (Academic Information System), PAMIS (Project Accounting and Monitoring System), EOL (Examination On-Line) and iSurvey (Internet Survey) to match world standards.**
- **The Institute that runs postgraduate programme in Management recognized by Association of Indian Universities (AIU) and NARIC (UK).**
- **The Institute that has dedicated faculty with proven track record in research, academics, consultancy and the corporate.**

The Institute

XAVIER INSTITUTE OF MANAGEMENT, BHUBANESWAR
Xavier Square, Bhubaneswar- 751013, Orissa, India
Tel: 91-0674-300 090 / 097 / 098 / 688 / 821 / 846
Fax: 91-0674- 300 995 * E-mail: info@ximb.ac.in
Website: http://www.ximb.ac.in

XAVIER INSTITUTE OF SOCIAL SERVICE

Post Box No. 7, Purulia Road, Ranchi 834001
Telephone: 0651-2312482/2200873
Fax: 0651-2315381/2312482
Email: rch_xisspb7@sancharnet.in

GENERAL INFO

Year of Establishment: 1955

STUDENT BODY

Total number of students enrolled currently in various courses: 210
Personnel Management: 75 students
Rural Management: 75 students
Information Management: 60 students

ACADEMICS

Principal: Dr. Fr. B. Ekka
Placement Coordinators
Prof. S.R Shauq (Personnel Management), Prof. M.H. Ansari (Rural Management) and Mrs. S. Aarti (Information Management)
In-house faculty: 25
Visiting lecturers on panel: 28

COURSES OFFERED

Post Graduate diplomas in the following subjects:
Personnel Management
Rural Management
Information Management

ADMISSION PROCEDURE

Candidates are selected primarily on the basis of their performance in an objective type written test (MAT & XAT), which is followed by Group Discussion and Interview

DATES & DEADLINES

(as in 2002-2003)

Issue of application form: September
Last Date for submission of application form: January-end
Date for Written examination: MAT Exam - December and February; XAT Exam - January
Date for Group Discussion: April and May
Interview: April & May
Date for commencement of course: July 1

AREA OF STRENGTH

The Personnel Management course offered by the Xavier Institute of Social Service produces some of the finest HR professionals. An array of top firms to the campus every year in search of fresh talent.

In the academic year 2001-2002, the following companies were the top ten recruiters from the pool of Personnel Management graduates available on the campus

Air-India
ANZ Grindlays
Arvind Mills
BHEL
Bennett Coleman & Company
BOC
Bata India Ltd
Dabur
Grasim
HPCL

In 2002-2003, the Top 10 recruiters were:

ACC
Bata
Essar
HCL Comnet
Lakshmi Precision
Telco
Larsen & Toubro
Samtel
Shaw Wallace
Tata Consultancy Services

PLACEMENTS

A large number of companies visit the campus every year to recruit its graduates in its three streams

Information Management

Top recruiters 2002
Vetri Software
ICICI Prudential
IBHAR
Ranbaxy
TELCON
SRA Technology Ltd
Jetking
Spectramind
JJL

IM/Top recruiters 2003
Convergence Contact Centre
Web Development Corporation
IBHAR
ELECONSOFT
DSS Mobile Communication Ltd
Total Enterprise Solutions
SYKES
Wipro Spectramind
Naihati Jute Mills

Rural Management

Top 10 recruiters 2002

Swajal
KNNA (Kutch Nav Nirma Abhiyan)
CAPART
CASA
DPIP-MP
FES (Foundation for Ecological Security)
Hindalco
Pria
Holy Cross Social Service Centre
Pathfinder - YMCA

RM/Top 10 recruiters 2003

Aravali
CAPART
Cencored
FES
IDE
Kutch Nav Nirman Abhiyan
Sewa
Shantidoot
SRKPS
UNDP

XAVIER INSTITUTE OF SOCIAL SERVICE

Estd. 1955

Post Box - 7, Purulia Road, Ranchi-1, Jharkhand

Preparing Professionals with a Difference

INSTITUTE WITH A DIFFERENCE

Director Receiving
The Best Institute Management Award - 2003
at World HRD Congress, Mumbai

Spectrum of Programmes

Post Graduate Courses (2 yrs.) Full Time

- Personnel Management
- Rural Management
- Information Management

Diploma Courses processed for Degree Courses.

Strong Infrastructure Facilities:

- Library, Computer Lab, Auditorium

Facilities Provided

- P.C. with internet connection for students and faculties.
- Hostel accommodation for Girls & Boys

Placement:

- 100% Placement for Rural Management Programmes.
- Good Placement in Personnel Management & Information Management

Admission Procedure:

MAT (Held on First Sunday of December & February) & XAT (Held in the month of January)

A CENTRE OF EXCELLENCE IN THE COUNTRY IMPARTING VALUE DRIVEN
MANAGEMENT & DEVELOPMENT EDUCATION
Ridge/03-04

XAVIER LABOUR RELATIONS INSTITUTE

Post Box No. 222,CH Area (East)
Jamshedpur 831 001
Telephone: 0657-2231525/2225506
Fax: 0657-2227814
Email: pdthomas@xlri.ac.in
pdthomas@hotmail.com

GENERAL INFO

Xavier Labour Relations Institute was started in 1949 with a view to contributing to the professional growth and management of innumerable institutions that serve the public, especially organized industry, labour, service agencies engaged in rural development, education, health and other public systems.

STUDENT BODY

Students enrolled currently in various courses: 785

ACADEMICS

Director: Fr. Thomas P.D., SJ
Dean: Dr E.M. Rao
Placement Coordinator: Prof. Sabyasachi Sengupta
In-house faculty: 38
Visiting lecturers on panel: 25

COURSES OFFERED

- Personnel Management & Industrial Relations
- Business Management
- Exec-PGP
- FPM
- PGCBM
- GMP

ADMISSION PROCEDURE

Entrance examination format: XAT (Multiple-choice objective questions)
Venues for entrance examination: 41 centres

DATES AND DEADLINES

Last date for issue of application form : November 30
Last date for submission of application form: November 30
Written examination date :1st Sunday of January every year
Group discussion date: Nil
Interview date: March-April

PLACEMENTS

Top 10 recruiters 2001-02

- Citibank
- Colgate
- CTS
- HLL
- HCL
- Hewitt
- Infosys
- ITC
- Polaris
- Reckitt Benckiser

Top 10 recruiters 2002-03

- HLL
- GE Caps
- Glaxo Smithkline
- McKinsey & Co.
- Coca-Cola
- ICICI
- Pepsi
- L & T
- Procter & Gamble
- Standard Chartered Bank

Average salary offered
Last year: Rs 6.01 lakhs per annum
This year: Rs 6.82 lakhs per annum

Highest salary offered
Last year: Rs 12 lakhs per annum
This year: Rs 14 lakhs per annum

Lowest salary offered
Last year: Rs 4 lakhs per annum
This year: Rs 4 lakhs per annum

FEE STRUCTURE

Tuition fees (in thousands)	Rs.276.50
Hostel fees (in thousands)	Rs.49.00

FROM THE DEAN

We have radically restructured our curriculum for both Personnel Managment &Industrial Relations (PMIR) and Business Management (BM) programmes with the basic objective of aligning ourselves with the changing demands of the industry. The new curriculum has been put in place from the current academic year, i.e., 2002-03.

The satellite-based On-line one-year Certificate Course (Post-Graduate Certificate in business Management - "PGCBM"), which was started in October-November 2002 in collaboration with Hughes Escorts Communication Ltd. has received an excellent response with 250 practising executives from all over the country registering for the same. is programme is being offered through 15 centres located in 11 cities. The first batch will qualify for the Certificate in Management during the last quarter of 2003. The enrollment of executives for second batch is under way.

RESEARCH AND SEMINARS

XLRI seeks to promote high quality research placing special emphasis on the contemporary social and economic change. Our research have considerable interface with industry, government as well as academia from India and abroad. We have several Research Centres with faculty expertise in a wide variety of subjects. The priority research areas include social and behavioural issues, labor market analysis, financial markets and risk management, e-governance, industrial and rural marketing, small business management, leadership and organizational change.

STUDENT LIFE

At XLRI, apart from classroom training there is also focus on extra curricular activities so that both theoretical and practical knowledge is imparted. To this end are held activities such as the MAXI Fair where market research and fun is combined; the National HR conference where students and company professionals get together, simulated stockbroking games and numerous case studies, XLRI-IIMC Meet annually, Participation in B-School events such as paper presentations, quizzes, debates, etc.

XLRI JAMSHEDPUR

Management Development Programmes

Title of the Programme	Duration	Prog. Coordinator(s)
July - August 2003		
Basic Leadership Skills	Jul. 7-11	Thomas P D, sj
Effective Presentation Skills	Jul. 14-16	A C Jesurajan, sj
Economic Indicators of Business Cycles	July 14-18	Veena Pailwar
HR for Non-HR and Line Executives	Jul. 14-18	E M Rao & M Srimannarayana
Perfecting Presentation Skills	**Jul. 17-18**	**A C Jesurajan, sj**
Industrial Relations and IR Laws	Jul. 21-25	Pranabesh Ray
Strategic Management for Business Leadership	**Jul. 21-25**	**Ram K Kakani & B Saha**
Strategies for Electronic Libraries	Jul. 28-Aug. 1	Sangayya S Sirurmath
Industrial Marketing Strategies	Aug. 4-7	Sharad Sarin
Personal Growth and Effectiveness Lab	Aug. 11-15	P T Joseph, sj
Balance Scorecard	Aug. 18-20	Ram Kumar Kakani
Manufacturing Management	Aug. 18-22	P K De
Understanding Indian Consumer Behaviour for FMCG & Durables	Aug 18-22	Ashis Mishra
Cross-Cultural Management	Aug. 25-28	Madhukar Shukla
Supply Chain Management	Aug. 25-29	TAS Vijayaraghavan
Valuation of Companies ***(Mumbai)***	Aug.28-30	Pitabas Mohanty
September 2003		
Leadership through Spiritual Awareness ***(Ooty)***	Sep. 1-3	Ekkirala S Srinivas
Disciplinary Action, Domestic Enquiry, Discharge and Dismissal: Legal and IR Implications ***(Bangalore)***	Sep.1-4	E M Rao
Assessment Centre Approach to Competency Mapping ***(Mumbai)***	Sep. 1- 5	R K Premarajan
Fixed Income Securities Markets and Portfolio Management	Sep. 1-5	H K Pradhan
Human Resource Management in the Liberalized Economy	Sep. 8-11	Pranabesh Ray
Achieving Customer Delight	Sep. 8-12	Mohan L Agrawal
Strategies for Creating Value	**Sep. 8-12**	**Ram K Kakani & B Saha**
Data Warehousing for Management Decisions	Sep. 15-17	Supriya Kumar De
Managing the Training Function	Sep. 15-18	M Srimannarayana
Retailing in India: Challenges, Opportunities and Strategies	Sep. 15-19	Ashis Mishra
Financial Management	Sep. 22-26	James Santhanam, sj
October 2003		
Business Writing	**Oct. 13-14**	**A C Jesurajan, sj**
Managing Knowledge and Learning	Oct. 13-16	Madhukar Shukla
The Science and Art of Managing Effectively	Oct. 16 - Nov 7	Mathai B Fenn
Strategic Brand Management	Oct. 20-24	Sanjay K Patro
Effective Influencing Skills and Strategies ***(Lonavla)***	Oct. 27-29	Venkat R Krishnan
Supervisory and Managerial Effectiveness	Oct. 27-30	E M Rao
Transformational Leadership *(Lonavla)*	Oct. 30- Nov 1	**Venkat R Krishnan**
November 2003		
Managing Men and Corporate	Nov. 3-6	P K Padhi & E M Rao
Team Building and Conflict Management	Nov. 3-7	ISF Irudayaraj
Basic Leadership Skills	Nov. 10-14	Thomas P D, sj
Logistics Management	Nov. 10-14	TAS Vijayaraghavan
Product Strategy and New Product Management ***(Mumbai)***	Nov. 17-20	Sanjay K Patro
Finance for Non-Finance Executives	Nov. 17-21	Sabyasachi Sengupta
Workshop on Customer Relationship Management ***(Bangalore)***	Nov. 20-22	Sharad Sarin
Interpersonal Skills ***(Mumbai)***	Nov. 24-26	E S Srinivas
Customer Service Skills	Nov. 24-28	Mohan L Agrawal
Effective Marketing	Nov. 24-28	Pingali Venugopal
Managing e-Security ***(New Delhi)***	Nov. 26-28	Ashis K Pani & Supriya K De
Competency Based Human Resource Management ***(Mumbai)***	Nov. 27-29	R K Premarajan

*** Programmes in bold are for Senior Executives***

For Further Details, Please Contact : Ms Janaki Jagan, MDP Officer, XLRI, Circuit House Area (East), Jamshedpur 831 001
Phone : +91-657-2225518 (Direct), 2225506 Ext : 600; Fax : +91-657-2227814 Mobile:+91 98351 15262
E-Mail: mdp@xlri.ac.in Website : http://www.xlri.ac.in/mdp

PAMS3160502

XAVIER VIGNANA JYOTHI INSTITUTE OF MANAGEMENT

Plot No 7, Road No 1, West Marredpally,
Secunderabad - 500026
Telephone: 040-27805778/27800819
Fax: 040-27805222
Email: vjim@hd2.dot.net.in
Website: www.xaviervjim.com

GENERAL INFO

Type of school: Private
Year of Establishment: 1991

STUDENT BODY

Students enrolled currently: 120

ACADEMICS

Director: Brig (Retd) R. Ravindranath Chowdary, VSM
Placement Coordinator: Prof. R. Rama Rao
In-house faculty: 10
Visiting lecturers on panel: 12

COURSES OFFERED

Master of Business Administration (MBA) with following elective streams: Marketing, Finance, Human Resource Management, Management Info Systems, International Business, Operations, General Management

ADMISSION PROCEDURE

The institute holds its own annual Entrance Test in accordance with the guidelines laid down by AICTE. On the basis of the written entrance examination, candidates are called for Group Discussion and Personal Interview

Venues for Entrance Examination: Secunderabad, Vijayawada and Visakhapatnam

DATES & DEADLINES

Issue of Application Form: February 3, 2003
Last date for submission: May 15, 2003
Entrance Test: May 21, 2003
Interview: May 22-24, 2003
Commencement of course: June 23, 2003

FROM THE DIRECTOR

Our mission is to develop managers with a holistic vision and cross-functional capabilities. We focus on developing creative achievers who will make a difference to the corporate world with their innovative spirit and zest to perform. We insist on upholding the essential values that we have cherished for so many generations and which form the bedrock of our society.

INSIDE THE CLASSROOM

An up-to-date curriculum, contemporary pedagogy and participative and experiential learning methodology make classroom learning interesting and application-oriented. Case discussions, on-line Projects and Dissertations adequately support the learning process. Regular workshops are held by well-known experts to enable students to acquire focused learning.

RESEARCH&SEMINARS

Xavier VJIM encourages active industry participation through seminars on a wide variety of contemporary topics - Entrepreneurship, Supply Chain Management and International HR, among others. The Faculty publishes regular research papers, which are presented at leading seminars, besides being regularly published in journals.

STUDENT LIFE

The Xavier Vignana Jyothi Institute of Management's comprehensive Personal Development Plan is specially designed to enhance an individual's personality.

The Plan includes peer group activities, personalised faculty mentoring and events such as quizzes, role-plays, and seminars.

Chrysalis, an event during which the students get an opportunity to give full expression to their latent talents and points of view, is also held annually on the institute's campus.

PLACEMENTS

A large number of leading corporate houses visit the campus every year to recruit students for summer training and final placement

Top 10 Recruiters
Last Year

Grasim Industries
BPL
Tecumseh
Hindustan Coca Cola
Global Trust Bank
GE Capital
HSBC Ltd.,
Videocon International
HDFC
Delloite Touche

This Year
Grasim Industries
Satyam Computers
HSBC Ltd.
IDBI Bank
Global Trust Bank
ICICI - Prudential
ING Vysya
Videocon International
Zenith Computers
Godfrey Phillips

Average salary offered
Last year: Rs 1.2 Lakh per annum
This year:Rs 1.8 lakh per annum

Highest salary offered
Last year: Rs 2.2 lakhs per annum
This year: rs 2.7 lakhs per annum

Lowest salary offered
Last year: Rs 1 lakh per annum
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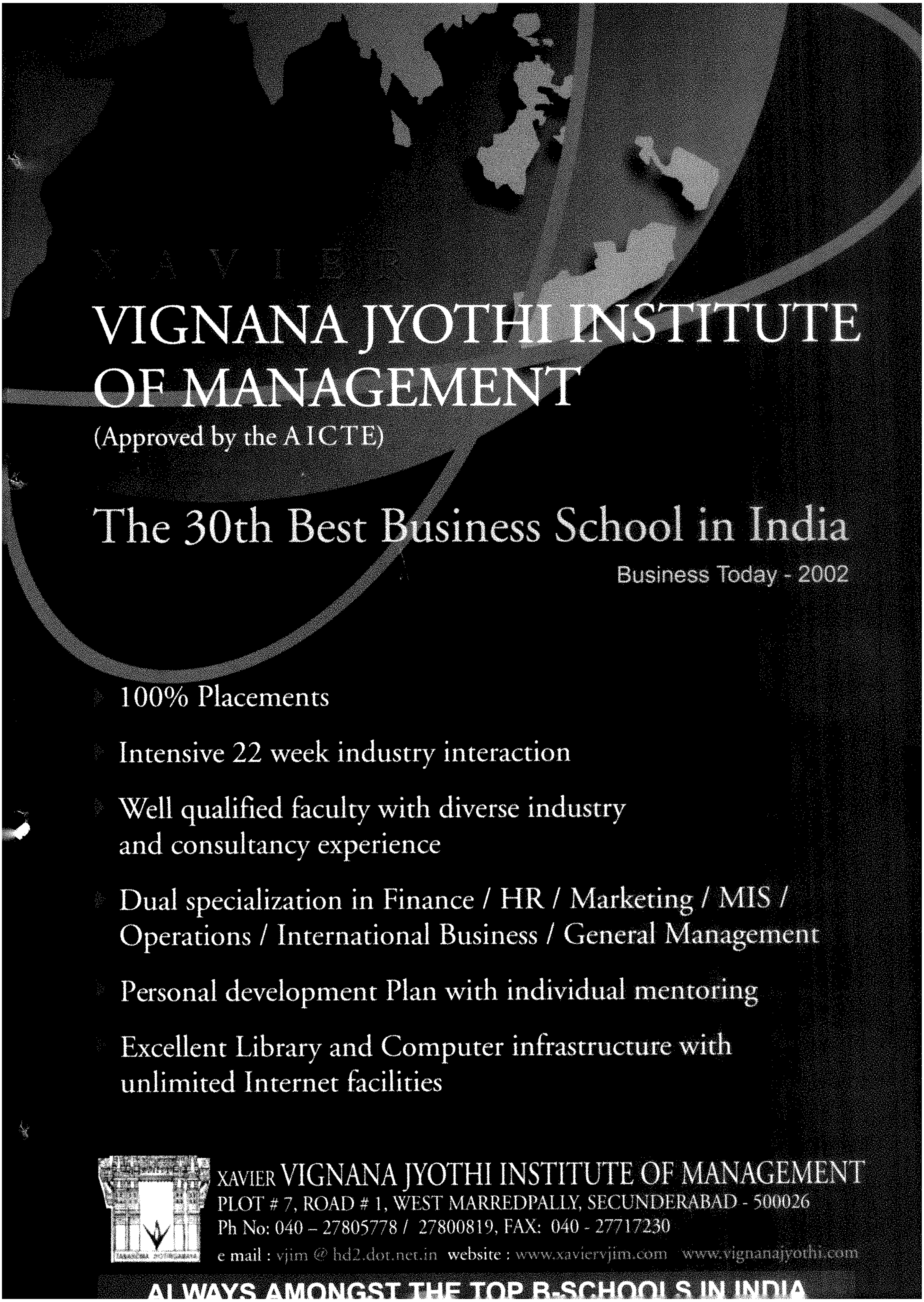

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ALGAPPA UNIVERSITY,
DEPARTMENT OF MANAGEMENT STUDIES,
ALAGAPPAPURAM, KARAIKUDI - 623 003.
ANNA UNIVERSITY, SARDAR PATEL ROAD, GUINDY, MADRAS-600025

ANNAMALAI UNIVERSITY,
DIRECTORATE OF DISTANCE EDUCATION
DEPARTMENT OF BUSINESS ADMINISTRATION,
ANNAMALAI NAGAR - 608 002

ARULMIGHU KALASLINGAM
COLLEGE OF ENGINEERING KRISHNANKOIL - 626 190

ARULMIGU MEENAKSHI AMMAN COLLEGE,
VADAMAVANDAL (NEAR KANCHUPURAM)
NAMANDI (P. O.) - 604 410 TAMIL NADU

ASAN MEMORIAL COLLEGE OF ARTS & SCIENCE.
VELACHERY - TAMBARAM ROAD, JALADAMPET, CHENNAI-601302

AVINASHLINGAM INSTITUTE OF H. SCIENCE &
HIGHER EDUCATION FOR WOMEN
(DEEMED UNIVERSITY), COIMBATORE

BHARATH INSTITUTE OF SCIENCE & TECHNOLOGY
173, AGHARAMA ROAD, SALAIYUR, MADRAS - 600 073

BHARATHIDASAN INSTITUTE OF MANAGEMENT,
(SCHOOL OF EXCELLENCE OF BHARATHIDASAN UNIVERSITY)
POST BOX NO. 12, BHEL COMPLEX, TIRUCHIRAPPALI-620014

BHARTHIDASAN UNIVERSITY,
SCHOOL OF DISTANCE EDUCATION,
TIRUCHIRAPPALI - 620 024, TAMIL NADU

C. B. M. COLLEGE,
KOVAIPUDUR COIMBATORE - 641 042

CMS COLLEGE OF SCIENCE & COMMERCE
CHINNAVEDAMPATTY, COIMBATORE - 641 061.

COIMBATORE INSTITUTE OF MANAGEMENT & TECHNOLOGY
SHANMUGA ILLAM, 1001, CROSS CUT ROAD, GANDHIPURAM
COIMBATORE - 641 012

CHERAN INSTITUTE OF MANAGEMENT STUDIES,
CHERAN NAGAR, KANGAYAM - 638 701, PERIYAR DISTRICT.

CRESCENT ENGINEERING COLLEGE,
G.S.T. ROAD, VANDALUR,
MADRAS - 600 048, TAMIL NADU

D. D. GOVERDHAN DASS VAISHNAV COLLEGE,
445, PARIYAR E.V.R. HIGH ROAD,
ARUMBAKKAM, MADRAS - 600 106

DEPARTMENT OF MANAGEMENT STUDIES,
MANOMANIAM SUNDARNAR UNIVERSITY
THIRUNELVELI - 627 012

DR. GR DAMODARAN INSTITUTE OF MANAGEMENT
CIVIL AERODROME POST, AVANASHI ROAD,
COIMBATORE - 641 014

DR. MGR ENGINEERING COLLEGE,
MADURAVOYAL PERIYAR E. V. R. HIGH ROAD,
MADRAS - 602 102

Source: AICTE

FATIMA COLLEGE,
DEPT OF MANAGEMENT STUDIES,
FATIMA COLLEGE CAMPUS, MARY LAND,
MADURAI - 625 018

E.G.S. PILLAY ENGINEERING COLLEGE,
NAGAPATNAM, TAMIL NADU - 601 001

EASWARI ENGINEERING COLLEGE FOR WOMEN,
BHARATHI, SALAI, RAMAPURAM,
CHENNAI - 600 089

GRG SCHOOL OF MANAGEMENT STUDIES,
FOR WOMEN, PEELAMEDU, COIMBATORE - 641 004

GURUVAYURAPPAN INSTITUTE OF MANAGEMENT,
514-H, SATHY ROAD, GANAPATHY, COIMBATORE - 641 006

HINDUSTAN COLLEGE OF ENGINEERING,
P. B. NO. 01 OLD MAHABALIPURAM ROAD,
KELAMBAKKAM, PODUR - 603 103
DIST. CHENGLEPUT-MGR
INSTITUTE FOR TECHNOLOGY & MANAGEMENT
RUSSIAN CULTURAL CENTRE,
27, KASTURI RANGA ROAD, MADRAS

INSTITUTE OF FINANCIAL MANAGEMENT & RESEARCH
P. B. NO. 3330, 30 KOTHARI ROAD,
NUNGAMBAKKAM, MADRAS - 600 034

INSTITUTE OF SOCIAL SCIENCE & RESEARCH
GREENWOODS ,JABBERPET VELLORE - 632 006.

J. J. COLLEGE OF ARTS & SCIENCE,
J. J. NAGAR , SIVAPURAM
NAMANASAMUDRAM - 622 404, PUDUKKOTTAI DISTT.

J. J. COLLEGE OF ENGINEERING,
ANMAPETTAI, POOLANGULATHUPPATTI (P. O.)
TIRUCHIRAPPALLI - 620 009

JAMAL MOHAMED COLLEGE,
KHAJA NAGAR, RACECOURSE ROAD,, TIRUCHIRAPALLI-620 020

JAYA ENGINEERING COLLEGE,
TIRUNINRAUVR - 602 024.TAMIL NADU.

K. L. N. COLLEGE OF ENGINEERING,
KONTHAGAI P. O. POTTAPALAYAM - 623 611.
PASUMPON MUTHURAMALINGAM DISTRICT

K. S. RANGASAMY COLLEGE OF ARTS & SCIENCE,
THOKKAVADI, TIRUCHENGODE - 637 209.
TAMIL NADU.

K. S. RANGASAMY COLLEGE OF TECHNOLOGY,
THOKKAVADI, TIRUCHENGODE - 637 209

KARPAGAM ARTS & SCIENCE COLLEGE,
14-A, LIC COLONY, SIDCO, COIMBATORE - 641 021.

KONGU ARTS & SCIENCE COLLEGE,
NANJANAPURAM, ERODE - 638 107.
TAMIL NADU

KARUNYA INSTITUTE OF TECHNOLOGY,
KARUNYA NAGAR,
COIMBATORE - 641 114

KONGU ENGINEERING COLLEGE,
THOPPUPALAYAM,
ERODE - 638 052.

L. V. E. SAPTAGIRI COLLEGE OF ENGINEERING
9-B, WINDING DRIVER,
CHIMASAMY STREET
DHARMAPURI
ERODE - 636 701

LOYOLA INSTITUTE OF BUSINESS ADMINISTRATION
LOYOLA COLLEGE, STERLING ROAD
NUNGAMBAKHAM, MADRAS - 600 034

MAHARAJA ENGINEERING COLLEGE,
AVINASHI, COIMBATORE - 641 054.

MEPCO SCHLENK ENGINEERING COLLEGE,
SIVAKASI, AMATHUR POST - 626 005
TAMIL NADU

MOP VAISHNAV COLLEGE FOR WOMEN,
NO. 20, IV LANE, NUNGAMBAKKAM HIGH ROAD,
MADRAS - 600 034

MADURAI KAMRAJ UNIVERSITY
DEPARTMENT OF MANAGEMENT STUDIES,
PALKALAI NAGAR, MADURAI - 625 021

MAHARAJA COLLEGE FOR WOMEN,
P. B. NO. 17. PERUNDURAI - 638 052
TAMIL NADU

MOHAMMAD SATHAK COLLEGE OF ARTS & SCIENCES
SHOLINGANALLUR, MADRAS - 600 094

MOHAMMAD SATHAK ENGINEERING COLLEGE,
KILAKARAI - 623 806, DIST. RAMANATHAPURAM

N. M. S. S. V. NADAR COLLEGE,
NAGAMALAI,
MADURAI - 625 019
NESAMONY MEMORIAL CHRISTIAN COLLEGE,
MARTHANDAM - 629 165, KANYAKUMARI DISTRICT
TAMIL NADU

NATIONAL INSTITUTE OF HUMAN RESOURCE DEVELOPMENT
NO. 7, DUMING LANE OFF, 151, SANTHOME HIGH ROAD,
MADRAS - 600 004.

NEHRU COLLEGE OF MANAGEMENT,
451-D, NEHRU COLLEGE CAMPUS,
PALGHAT MAIN ROAD, KUNIAMUTHUR,
COIMBATORE - 641 008.

NEW COLLEGE INSTITUTE OF MANAGEMENT,
ASSOCIATION GARDENS 87, PETER'S ROAD,
ROYAPTHAH, MADRAS - 600 014.

NOORUL ISLAM COLLEGE OF ENGINEERING
POST BOX NO. 1, THUCKALAY,

P. K. R. ARTS COLLEGE FOR WOMEN,
PERIYAR ROAD, GOBICHETTIPALAYAM - 638 476.
PERIYAR DISTRICT

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STUDIES & COMPUTER SCIENCE,
23, RAILWAY COLONY -II STREET,
NELSON MANICAKAM ROAD, CHENNAI - 600 029.

PARK'S COLLEGE,
CHINNAKKARAI, TIRUPUR - 641 605.
COIMBATORE DISTRICT

PEE GEE COLLEGE OF ARTS & SCIENCE,
9-B, W. D. C. STREET, DHARMAPURI - 636 701
TAMIL NADU

PRIYADARSHINI ENGINEERING COLLEGE,
BHARAT NAGAR, CHETTIYAPPANUR,
VANIYAMBADI - 635 751

PSG COLLEGE OF TECHNOLOGY
PEELAMEDU,
COIMBATORE - 641 004

PSGRK COLLEGE FOR WOMEN
DEPARTMENTS OF MANAGEMENT STUDIES,
PEELAMEDU, COIMBATORE - 641 004.

PSNA COLLEGE OF ENGINEERING & TECHNOLOGY
MUTHANAMPATTY (P.O.),
DINDIGUL - 624 622 (ANNA DISTRICT)

R. L. INSTITUTE OF MANAGEMENT STUDIES,
T. V. R. NAGAR, MADURAI - 625 022
TAML NADU

R. V. S. INSTITUTE OF MANAGEMENT STUDIES & RESEARCH
C/O R. V. S. COLLEGE OF ARTS & SCIENCE
K. V. K. THATTAM, TRICHY ROAD, SULUR - 641 402
COIMBATORE DISTRICT

RAJA COLLEGE OF ENGINEERING & TECHNOLOGY,
S. V. RAJA NAGAR, VEERAPANJAN,
MADURAI - 625 020.

RVS COLLEGE OF ENGINEERING,
RVS NAGAR, DINDIGUL - 624 004

REGIONAL ENGINEERING COLLEGE,
DEPARTMENT OF MANAGEMENT STUDIES,
TIRUCHIRAPALLI - 620 015

SANKARA INSTITUTE OF MANAGEMENT SCIENCE
SARAVANAPATTI, COIMBATORE - 35
TAMIL NADU

S. I. V. E. T. COLLEGE,
GOWRIVAKKAM, CHENNAI-601 302
TAMIL NADU

S. N. R. SONS COLLEGE
SNR COLLEGE ROAD, COIMBATORE - 641 006
TAMIL NADU

S. R. M. COLLEGE OF ARTS & SCIENCE,
S. R. M. NAGAR, KATTANKULATHUR,
KANCHEEPURAM DISTRICT - 600 089
TAMIL NADU

SCS KOTHARI ACADEMY FOR WOMEN,
SBK HOUSE - 17, VENKATAPATTI,
STREETKILPAUK
SENGUNTHAR INSTITUTE OF MANAGEMENT STUDIES,
NEIKKARAPATTI, KUPPANDAPALAYAM (P.O.),
VIA KUMARAMANGALAM,
TIRUCHENGODE - 637 205.

SHANMUGHA COLLEGE OF ENGINEERING
TIRUMALAISAMUDRAM, THANJAVUR - 613 402
TAMIL NADU

SHRIMATI INDIRA GANDHI COLLEGE FOR WOMEN,
TIRUCHIRAPALLI - 620 002, TAMIL NADU

SONA COLLEGE OF TECHNOLOGY,
SONA NAGAR, THIAGARAJAR POLYTECHNIC ROAD,
SURAMANGALAM POST - SALEM - 636 006

SRI PUSHPAM COLLEGE OF TECHNOLOGY EDUCATION,
A. V. V. M., SRI PUSHPAM COLLEGE (AUTONOMOUS) POONDI
THANJAVUR DISTRICT - 613 503

SRI SAIRAM ENGINEERING COLLEGE,
POONTHANDALAM DHARKAST, WEST TAMBARAM,
MADRAS - 600 044.

SRICHANDRESEKHARENDRA SARASWATHI VISWA
MAHAVIDYALA DEPARTMENT OF MGT STUDIES,
DEEMED UNIVERSITY, ENATHUR,
93, SRI JAYENDRA SARASWATHI STREET,
KACHIPURAM - 631 552

SRM INSTITUTE OF MANAGEMENT STUDIES,
SRM ENGINEERING COLLEGE,
SRM NAGAR, (CHENGALAPATTU M. G. R. DISTRICT)
KATTANKULATHUR - 603 203

ST. MARY'S SCHOOL OF MANAGEMENT STUDIES,
OLD MAMALLAPURAM ROAD,
MADRAS - 600 096.

SATHYABHAMA ENGINEERING COLLEGE,
SATHYABHAMA SCHOOL OF MGT STUDIES,
JEPPIAAR NAGAR, OLD MAMALLAPURAM ROAD,
MADRAS - 600 096

SHOBHA SCHOOL OF MANAGEMENT,
ALAMBADI VILLAGE, KANGEYAM TALUK,
PERIYAR DISTRICT

SOURASHTRA COLLEGE,
DEPT. OF MANAGEMENT STUDIES,
PASUMALAI
MADURAI - 625 004

SREE AMAN INSTITUTE OF MANAGEMENT & RESEARCH
V. THAIRPPALAYAM (P.O.), CHITTODE (VIA)
ERODE - 638 102. (DIST. PERIYAR)

SRI NEHRU M.V. COLLEGE OF ARTS & SCIENCE
SHRI COMBHIRMAL BAFRIA NAGAR, MALUMACHAMPATTI,
COIMBATORE - 641 021

SRI SANKARA SCHOOL OF MANAGEMENT COMPUTER SCIENCE
NO. 2, MURUGAVEL NAGAR, LIC COLONY,
TRICHY - 620 021.

SRI SIVASUBRAMANIYA NADAR SCHOOL OF
MANAGEMENT AND COMPUTER APPLICATIONS,
KALAVAKKAM, CHENGALPATTU TALUK,
KANCHIPURAM DISTRICT - 603 110

SRI SAIRAM ENGINEERING COLLEGE,
POONTHANDALAM DHARKAST, WEST TAMBARAM,
MADRAS - 600 044, TAMIL NADU

SRIRAM ENGINEERING COLLEGE,
G. S. T. ROAD, VANDALUR,
MADRAS - 600 048

Source: AICTE

SRIRAM INSTITUTE OF MANAGEMENT,
18, EVENING BAZAAR ROAD,
MADRAS - 600 003.

ST. JOSEPH COLLEGE OF ENGINEERING,
JEPPIAAR NAGAR,
OLD MAMALLAPURAM ROAD,
MADRAS - 600 096

ST. PETER'S INSTITUTE OF MANAGEMENT,
AVADI, CHENGAI (T. N.)
DR. M. G. R. DISTRICT

THANTHAI HANS ROEVER COLLEGE,
ELAMBALUR POST, PERAMBALUR TK,
THIRUVALLUVAR DISTRICT - 621 212
THIAGARAJAR SCHOOL OF MANAGEMENT
PAMBAN SWAMI NAGAR, THIRUPPRANKUNDRAN,
MADURAI- 625 005, TAMIL NADU
MADURAI KAMARAJ 2000 / PVT-NO-GRANT

THE ETHIRAJ COLLEGE FOR WOMEN,
ETHIRAJ SALAI, MADRAS - 600 105.

TAMIL NADU AGRICULTURAL UNIVERSITY
COIMBATORE - 641 003

TAMIL NADU COLLEGE OF ENGINEERING
KAMMATHAMPATTI, COIMBATORE - 638 659

THANGAVELU COLLEGE OF SCIENCE & MANAGEMENT
ATTUR TK, SEKKADIPATTI,
SALEM DISTRICT

THE AMERICAN COLLEGE,
DEPARTMENT OF MANAGEMENT STUDIES,
ALAGARKOIL ROAD,
MADURAI - 625 002.

THE INDIAN ENGINEERING COLLEGE,
RAJA NAGAR, TIRUNELVELI,
VADAKANGULAM - 627 116
KOTLABOMMAN DISTRICT

UNIVERSITY OF MADRAS
DEPARTMENT OF MANAGEMENT STUDIES,CHEPAUK,
MADRAS - 600 005.

V. L. B. JANAKIAMMAL COLLEGE OF ENGINEERING &
TECHNOLOGY
KOVAIPUDUR POST, COIMBATORE - 641 042.
TAMIL NADU.

V. M. KIRUPANANDA VARIYAR,
ENGINEERING COLLEGE
44-A, SECOND, AGRAHARAM, SALEM - 636 001

VALLIAMMAL COLLEGE,
E-9, ANNA NAGAR EAST,
CHENNAI - 600 102

VEL TECH,
42, AVADI-ALAMATHI ROAD, VELLANUR,
CHENNAI - 600 062

VEL'S COLLEGE OF SCIENCE,
OLD PALLAVARAM,
CHENNAI - 600 043.

VEL SRI RANGA SANKU COLLEGE
42, ALLAMATHI ROAD, AVADI, CHENNAI - 600 062

VGP SCHOOL OF MANAGEMENT,
INJAMBAKKAM,
MADRAS - 600 041

VYSYA INSTITUTE OF MANAGEMENT STUDIES,
RAMAKRISHNAPURAM, AYODYAPATTINAM (P.O.)
SALEM - 636 103

VELLAMAL COLLEGE OF MANAGEMENT
AND COMPUTER STUDIES
VELLAMAL GARDENS., T. S. KRISHAN NAGAR,
MADRAS - 600 060

VELLORE ENGINEERING COLLEGE,
VELLORE - 632 007

VIRUDHUNAGAR HINDU NADAR'S SENTHIKUMARA
NADAR COLLEGE,
VIRUDHUNAGAR - 626 001

SOUTHERN INDIA: KARNATAKA

ACHARYA INSTITUTE OF MANAGEMENT & SCIENCE
I STAGE, I CROSS, PEENYA,
BANGALORE, KARNATAKA

ALLIANCE BUSINESS ACADEMY
20TH CROSS, 7TH MAIN, PUSHPA LAYOUT,
N. S. PALYA (BTM-II STAGE), BANGALORE - 560 076

ADMINISTRATIVE MGT COLLEGE
AMC BUILDING. 30TH CROSS,
6TH NAIN, 4TH BLOCK, JAYANAGAR,
BANGALORE - 560 011.

AL-AMEEN ARTS, SCIENCE & COM. COLLEGE
HOSUR ROAD,
BANGALORE - 560 027
B. L. D. E. ASSOCIATION'S A. S. PATIL
COLLEGE OF COMMERCE, BIJAPUR-586 103

BAPUJI INSTITUTE OF ENGINEERING & TECHNOLOGY
SHABANUR ROAD,DAVANGERE - 577 004
KARNATAKA

BESANT WOMEN'S COLLEGE,
BESANT VIDYA KENDRA, MANGALORE - 575 008

BHARTIYA VIDYA BHAVAN'S HARILAL
BHAGWATI COLLEGE OF COMMERCE AND MANAGEMENT
RACE COURSE ROAD, METROPOLITAN CITY
BANGALORE - 560 001

BMS COLLEGE OF ENGINEERING
POST BOX NO. 1908, BULL TEMPLE ROAD,
BANGALORE - 560 019

BANGALORE UNIVERSITY,
PG DEPTT OF MANAGEMENT, JNANA BHARATHI,
BANGALORE - 560 056

C. M. R. COLLEGE OF MANAGEMENT STUDIES
NO. 2079, 2ND CROSS, 3RD BLOCK,
HENNUR BANASWADI LAYOUT,
BANGALORE - 560 084

C. N. K. REDDY COLLEGE OF BUSINESS MANAGEMENT
NO. 193, DOUBLE ROAD, INDIRANAGAR, II STAGE,
BANGALORE - 560 038

CHRIST COLLEGE,
HOSUR ROAD,BANGALORE - 560 029

DAYANANDA COLLEGE OF SCIENCE
ARTS & COMMERCE, BANGALORE
KARNATAKA

DEPARTMENT OF STUDIES IN BUSINESS ADMINISTRATION,
KUVEMPU UNIVERSITY, P. G. CENTRE, TOLAHUNASE,
DAVANGERE DISTRICT, KARNATAKA

DODDAPPA APPA INSTITUTE FOR MASTER FOR BUSINESS
ADMINISTRATION,
GULBARGA - 585 103

EAST WEST COLLEGE OF MANAGEMENT
#1948/49, 8TH MAIN, 'E' BLOCK,
II STAGE, RJAJAJINAGAR,
BANGALORE - 560 010

GARDEN CITY COLLEGE OF SCIENCE & MGT. STUDIES,
16TH K. M. OLD MADRAS ROAD, VIRGO NAGAR,
BANGALORE - 560 049.

GOVT. RC INSTITUTE OF BUSINESS MANAGEMENT
IIND FLOOR, S. T. P. ELECTRONICS BLOCK,
SESHADRI ROAD, BANGALORE - 560 001.

GULBARGA UNIVERSITY,
POST GRADUATE CENTRE, GANDHI NAGAR,
BELLARY-583 103

INDIAN INSTITUTE OF MANAGEMENT,
BANNERGHATTA ROAD,
BANGALORE - 560 076

INSTITUTE FOR TECHNOLOGY & MANAGEMENT,
BHS FIRST GRADE COLLEGE,
IV BLOCK, JAYANAGAR, BANGALORE - 560 011

INSTITUTE OF FIN. & INTERNATIONAL MANAGEMENT
2461, CROSS, 2ND STAGE, BANASHANKARI,
BANGALORE - 560 060.

INTECH INSTITUTE OF BUSINESS MANAGEMENT
960, 24TH MAIN, 38TH CROSS,
4TH 'T' BLOCK JAYANAGAR, BANGALORE - 560 041.

JAWAHARLAL NEHRU NATIONAL COLLEGE OF ENGG.,
P. B. NO. 128, NAVILE, SHIMOGA - 577 201.
KARNATAKA.

K. L. E. SOCIETY'S J. G. COLLEGE OF COMMERCE,
VIDYANAGAR, HUBLI - 580 021

KARNATAKA LAW SOCIETY'S INSTITUTE
OF MANAGEMENT EDUCATION & RESEARCH,
POST BOX NO. 504, "SAFALYA"
PLOT NO. 427, BHAGYA NAGAR
2ND CROSS, TILAKWADI E,
BELGAUM - 590 006
KURUNJI VENKATRAMANA GOWDA
COLLEGE OF ENG., SULLIA - 574 327

KARNATAKA KAVERI INSTITUTE
OF MANAGEMENT NO - 90/1, 90/2,
5TH CROSS, MALLESWARAM CIRCLE,
BANGALORE - 560 003

KARNATAKA UNIVERSITY,
KAUSALI INSTITUTE OF MANAGEMENT STUDIES,
DHARWAD - 580 003

M. S. RAMAIAH INSTITUTE OF MANAGEMENT
ADMINISTRATION AND RESEARCH,
M. S. RAMAIH ROAD, M. S. E. I. T. POST,
BANGALORE - 560 054.

MAHE INSTITUTE OF MANAGEMENT
UNIVERSITY CAMPUS
MADHAV NAGAR, MANIPAL
KARNATKA

MANIPAL INSTITUTE OF TECHNOLOGY
MANIPAL-576119, UDUPI DISTRICT
KARNATAKA

MVJ COLLEGE OF ENGINEERING
(NEAR WHITE FIELD)
KADUGODI POST
BANGALORE - 560 067

MANGALORE UNIVERSITY
DEPARTMENT OF BUSINESS ADMINISTRATION,
MANGALAGANGOTHRI, UNIVERSITY CAMPUS,
MANGALORE - 574 199

MT. CARMEL INSTITUTE OF MANAGEMENT,
58, PALACE ROAD,
BANGALORE - 560 052

NMAM INSTITUTE OF TECHNOLOGY,
NITTE - 574110 DIST. K.,
KARNATAKA

P. E. S. INSTITUTE OF TECHNOLOGY,
100 FEET RING ROAD, BSK III STAGE,
BANGALORE - 560 085

REDDYJANA SANGHA FIRST GRADE COLLEGE,
C. A. SITE NO. 1, 3RD BLOCK, KORAMANGLA,
BANGALORE - 560 034

REGIONAL INSTITUTE OF COOPERATIVE MANAGEMENT
67, PADMANBHENAGAR, BENASHANKARI II STAGE,
BANGALORE - 560 070

RURAL ENGINEERING COLLEGE,
BHALKI DISTRICT, BIDAR - 585 328
KARNATAKA

SAMBHRAM ACADEMY OF MANAGEMENT STUDIES,
AMBA BHAVANI TEMPLE ROAD,
JYOTHI NAGAR, VIDYARANYAPURA POST,
BANGALORE NORTH

SDM INSTITUTE OF MANAGEMENT DEV.
DIST. KANNADA, JUIRE - 574 240

SHRI B. V. V. SANGHA'S INSTITUTE OF MANAGEMENT,
C/O BASAVEHSWAR COMMERCE COLLEGE,
B. V. V. SANGHA'S CAMPUS,
BAGALKOT, KARNATAKA - 587 102.

SIDDAGANGA INSTITUTE OF TECHNOLOGY,
TUMKUR - 572 103
KARNATAKA

Source: AICTE

SIVANANDA SARMA
MEMORIAL R. V. COLLEGE, IST PHASE, 24TH MAIN,
J. P. NAGAR, BANGALORE - 560 078

SRI JAGADGURU CHANDRASHEKARA-
NATHA SWAMIJI INSTITUTE OF MANAGEMENT STUDIES
P. B. NO. 20, B. B. ROAD
CHICKBALLAPEER - 562101, KOLAR DISTRICT,
KARNATAKA

SRI JAYACHAMARAJENDRA COLLEGE OF ENGINEERING
MYSORE - 570 006
KARNATAKA

SRI SIDDHARTHA INSTITUTE OF MANAGEMENT STUDIES,
SSIT CAMPUS, MARALUR, TUMKUR - 572 105
KARNATAKA
SRINIVAS COLLEGE OF P. G. MANAGEMENT STUDIES,
PANDESHWAR, MANGALORE - 575 001

ST. JOSEPH COLLEGE OF BUSINESS ADMN.
NO. 163, BRIGADE ROAD,
BANGALORE - 560 025

SURANA COLLEGE,
NO. 16, SOUTH END ROAD, BASAVANGUDI,
BANGALORE - 560 004

T. A. PAI MANAGEMENT INSTITUTE,
MANIPAL - 576 119

T. JOHN COLLEGE,
88/1, KAMMANAHALLI, GOTTIGERE POST,
BANNERGHATTA ROAD, BANGALORE - 560 083

T. T. L. COLLEGE OF BUSINESS MANAGEMENT
NO. 2899/2, 1ST MAIN, SARASWATHIPURAM,
MYSORE - 570 009

TRANSFORMATIONAL INSTITUTE OF MANAGEMENT EXCELLENCE
A. J. TOWERS, BALMATTA,
MANGALORE - 575 002

THE OXFORD COLLEGE OF SCIENCE,
C. A. SITE NO. 40, I PHASE,
BANGALORE - 560 078

UNIVERSITY OF MYSORE,
DEPT. OF STUDIES IN MGT. SCIENCE,
CRAWFORD HALL, MANASAGANGOTRI,
MYSORE - 570 006

V. V. SANGHA'S VIJAYANAGARA INSTITUTE OF MANAGEMENT,
C/O VIJAYANAGAR ENGINEERING COLLEGE,
CANTT., BELLARY - 583 104
KARNATAKA

VIVEKANANDA DEGREE COLLEGE OF ARTS, COMMERCE &
SCIENCE
NO. 23-46,12TH MAIN ROAD,I BLOCK,
RAJAJI NAGAR, BANGALORE -560 010

XAVIER INSTITUTE OF MANAGEMENT & ENTERPRISES
MISSION ROAD,
UNITED MISSION COLLEGE CAMPUS,
BANGALORE - 560 034

SOUTHERN INDIA: KERALA

COCHIN UNIVERSITY,
(UNIVERSITY OF SCIENCE TECHNOLOGY)
SCHOOL OF MANAGEMENT STUDIES,
COCHIN - 612 022

KERALA UNIVERSITY,
TRIVANDRUM - 695 034

MAHATMA GANDHI UNIVERSITY SCHOOL OF MANAGEMENT &
BUSINESS STUDIES,
RAJOURI COLLEGE OF SOCIAL SCIENCE, RAJAGIRI
P. O. KALAMASSARY - 683 104

PMA MANAGEMENT FOUNDATION
MANAGEMENT HOUSE,
OFF. NH - 47, MARUTHARODE, COIMBATORE ROAD
PALAKKAD - 678 007.

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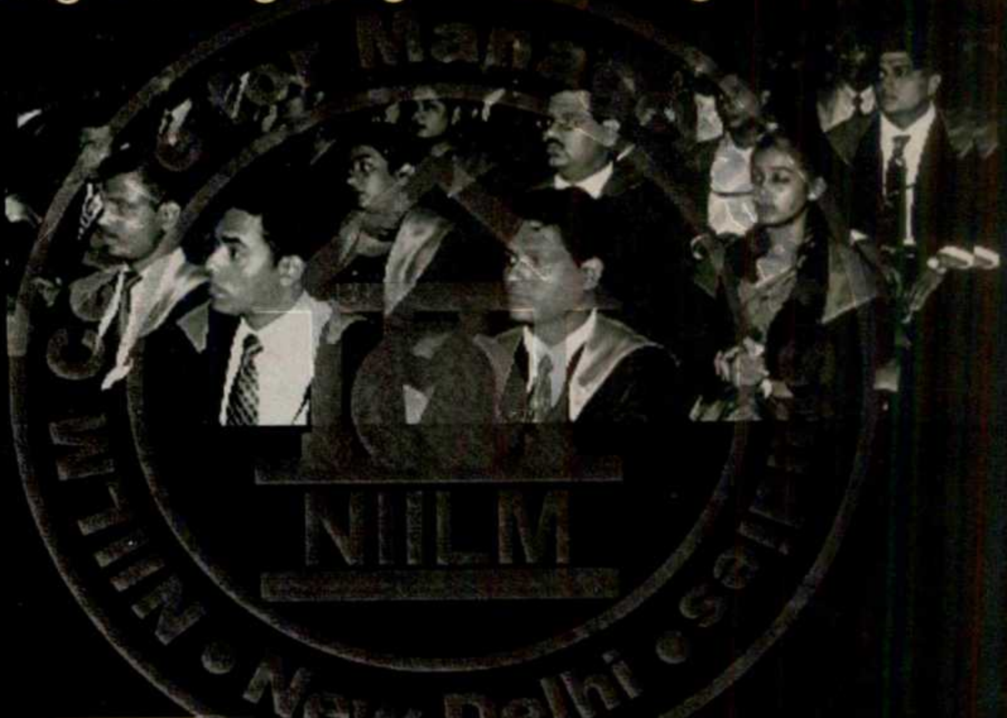

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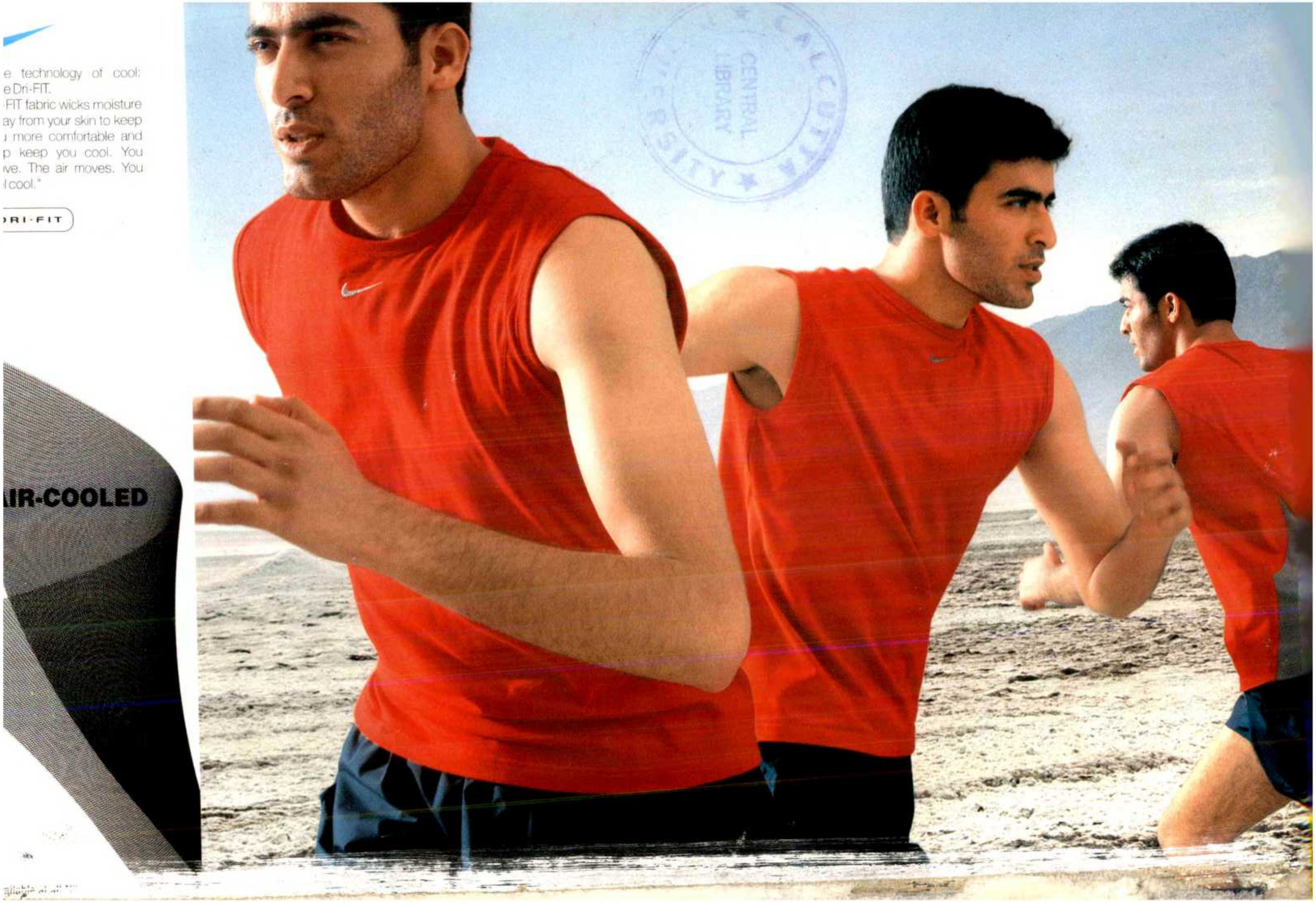

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